



We Eliminate Chaos

## Our Clients

Nothing says more than our clients experience with EHI.

We have had the pleasure of working with global leaders in various industries. Our ITIL approach to solving business problems with IT solutions is unique, which has allowed us to help our clients to become more successful in their efforts. Don't take our word for it. Just take a look at what some of our clients have said.





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“I worked with Mike Stollaire on a major project to upgrade BSM to version 9.21. Mike took the lead role in designing, developing, implementing, and testing the BSM System Health application meeting the business requirements. He was always calm and completed his tasks on time. He is very helpful and works as a team with other colleagues. I strongly recommend him for any lead positions.”

**Gopi Sadagopan**

Senior Software Designer at Hewlett Packard

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## Our Partners

We work with some of the best names in the business.

Our tactical and strategic partnerships provide a unique synergy, allowing us to provide the very highest level of service and products, for the lowest cost point. These relationships have been cultivated over the course of years, if not decades, with the result being that EHI is part of their early release programs (ERPs) and alpha/beta testing 24 X 7 X 365.

We are aware of changes and improvements in technology previous to the public and within the IT industry itself, which means EHI can be agile and provide a road map of continuous and never-ending improvement to all our clients, worldwide. EHI has also aligned itself with the leaders in the IT industry. Each one of our various partners provides the best service and software available to meet our client's specific needs. We have developed these partnerships to ensure the services and consulting we provide will help to guarantee our client's success.



**Hewlett Packard  
Enterprise**



**EMC<sup>2</sup>**

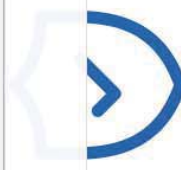






### Enterprise Management

Framework and Best-of-Breed Architecture and Design



### IT Security

Penetration testing, intranet/internet security analyses, network security analysis, intrusion detection systems



### Professional Services

Elite consultation services based on premiere, world-class resources across enterprise management, event correlation and root-cause analysis, intrusion detection systems, and IT security



### ITIL Workshops

Consulting services and strategy workshops to define your ITIL environment, policies and procedures

Trusted by some of the World's Best Brands

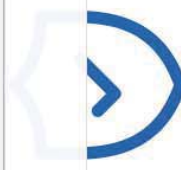






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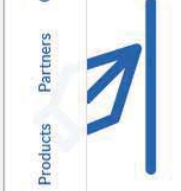
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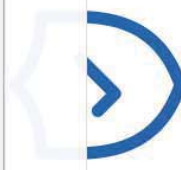
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## **EXHIBIT 13**

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“Best enterprise management team I have ever worked with. Talented, conscientious, hard working, excellent communication skills. The entire package!”

**John Sharpe**

Service Delivery Manager, The Federal Reserve Bank

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**Gopi Sadagopan**

Senior Software Designer at Hewlett Packard

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“I cannot overstate how helpful Mike was over the past couple weeks in supporting the HP uCmdb Universal Discovery (UD) project, specifically for the scan testing that we needed to complete in a hurry for our test phase. I had to ask a lot of his time over several test sessions. He was very helpful, was available when needed and contributed the subject matter expertise in running and evaluating the HP Performance Manager reports as well. Thanks for his support!!!”

**Jill Temple**

Project Manager, IT Infrastructure Synchrony Financial

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“Michael was originally asked to perform (and did indeed perform) routine administration tasks with HP OpenView Operations and HP OV Performance Manager. Later, we took advantage of the fact that he was familiar with SCOM and asked him to perform some SCOM admin tasks, too.

Tools utilized: HP OpenView Operations (OVO), HP OpenView Performance Manager (OVPM), Microsoft System Center Operations Manager (SCOM) Microsoft System Center Orchestrator (SCOrch), as well as BMC Remedy. Michael met our technical expectations by far, and his ability to communicate and work with internal and external clients should not be underestimated.”

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**Mark Conty**

Senior Enterprise Management Architect, Cargill

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“This award is presented to you in recognition of your outstanding performance and invaluable contributions to the Capacity Management Tool (HP Service Health Reporter {SHR}) Ready for Use deployment. Your skills and efforts have contributed immeasurably to our success. Thank you for your dedication.”

**Laura Rasor**

Project Manager, Boeing

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“Michael joined our project to provide expertise for deploying our HP performance monitoring products – which was to be replacing several of our Boeing-developed tools. Among a couple other contractors that were hired to support the project, Michael was the most productive. Michael guided us on tuning the NNMi, SHR, and Performance SPI products to scale to our large environment. He became the key liaison between Boeing and HP in resolving many issues that we identified. His relationship with HP support was very helpful. He also gave us good direction on the overall architecture – I wish he had come on board earlier in the project before procuring the platforms.”

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**David Christianson**

Network Management Product Manager, Boeing

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“I worked with Mike Stollaire and the team at EHI at Santa Barbara Bank and Trust. He was the lead on some major projects. His professionalism and technical skills were far above what we were used to. I really enjoyed working with him and thought I should try harder to be more like Mike. He was the Project Manager for our HP OpenView Project. Needless to say it was a huge project on many platforms, including AIX, Windows and Linux. He was able to implement and troubleshoot issues far better than anyone I’ve ever worked with. He would stay cool when the pressure was on and I really respected his work ethic.”

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**Eran Jenkins**

Senior Systems Administrator, Santa Barbara Bank and Trust

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## **EXHIBIT 14**

# Titanium Blockchain

INFRASTRUCTURE SERVICES



TBIS

WHITE PAPER

TBIS

v2.6 - December 14, 2017

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## DOCUMENT REVISION HISTORY

Version	Modifications Made	Author(s)
v1.0	Initial Draft	Michael Stollaire/Jason Brink
v1.1	DEXchange Added to Titanium's List of Products and Services	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.2	Titanium BAR Token distribution percentages modified to leave more to reserve, Referral Bonus program added, Storj added as a potential strategic partner, ZCash added as an approved currency to purchase BAR with, Pre-Sale period extended, due to the rapid increase in Bitcoin's (BTC) price causing a subsequent dramatic decrease in Ethereum's (ETH) value and the minimum amount of BTC/ETH raised to consider the ICO a "success" decreased, because of BTC's rapid price increase (doubled in price since release of v1.0 of this White Paper). Also, added a new section: "The EHI Advantage."	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.3	Increased the bonus for using the BAR within The Titanium Ecosystem to 10% from 5%. Also added verbiage to "The EHI Advantage" Section of the White Paper. Added verbiage about a defined soft cap of money that the project must raise for the project to be viable.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.4	Added Table of Contents	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.5	Moved Content, Added New Citations, Client Logos, etc.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.6	Changed security cap to 350,000 ETH.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.7	Added a figure of \$35,000,000 for a hard cap.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)

v1.8	Added emphasis on Titanium being the first blockchain start-up ever, to obtain D&B and BBB accreditation.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.9	Replaced old roadmap Figure 1 image with new roadmap image.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.0	Based on audit results, added more corporate information, such as Federal Tax ID, California Corporation ID, etc. Also, added more Titanium Core Team information as well.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.1	Corrected DEXchange information, regarding the number of cryptocurrencies listed, the number of fiat currency pairs supported, and the guarantee that DEXchange will charge the lowest transaction fees in the world, guaranteed.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.2	Added Five-Year Financial Projections for the Titanium Project.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.3	Re-Corrected an Incorrect Statement about the BAR Token, as it will be the only currency that can be used in the Titanium Ecosystem.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.4	Added verbiage for Platform as a Service (PaaS), as an augmentation and synergistic element of IaaS.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)



v2.5	Added additional verbiage, regarding PaaS, more information about what cloud-based issues that Titanium would solve, greater detail as to how Titanium's deployment on blockchain functions and solves current problems, removed a subsection of EHI-based verbiage, pegging BAR to the USD vs ETH, etc.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.6	Changed ETH:BAR purchase price for the ICO, since the price of Ethereum has more than doubled since the Titanium White Paper (WP) was authored.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)

## EXECUTIVE SUMMARY

### Titanium Infrastructure Services: The Ultimate Strength of the Blockchain... Unleashed™.

- Titanium Blockchain Infrastructure Services (TBIS) finally answers the question: “What if an entire IT enterprise could be decentralized, including data centers, firewalls, load-balancers, routers, switches, network appliances and servers?”
- TBIS intends to disrupt the current market leaders in the provisioning and virtualization space.
- Services Will Include: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Company as a Service™ (CaaS), Bring Your Own Cloud™ (BYOC), DEXchange™, Monitoring as a Service (MaaS), Blockchain as a Service (BaaS), Mining as a Service™ (MaaS), Instant ICO Incubator™ (III), etc.
- TBIS is developed on the blockchain platform, so all changes in the environment and assets will be recorded on an immutable ledger, to correlate with standard IT change management and ITIL methodologies.
- Follow-the-Sun enterprise management and monitoring services, autonomous healing, and optimized disaster recovery and redundancy mechanisms will allow TBIS to virtually guarantee close to 100% uptime of devices, applications and services, making them a market leader.
- Since TBIS would operate on the blockchain, the days of Distributed Denial of Service (DDoS) attacks and other black hat hacker exploits would effectively be over.
- Most, if not all, of the issues associated with similar cloud server products would be solved.
- The TBIS Administrative User Interface (UI) is intuitive and the simplest to use in the industry, and will be available as a thick client, web-based thin client, and mobility applications on both Apple’s iOS and Android platforms.
- UI wizards will allow administrators to create any component of their infrastructure in mere minutes, designed in alignment with their growth factors, technical requirements and business drivers.
- A unique capability to create virtual cryptocurrency miners will be included in TBIS services, allowing customers to spin up emulated ASIC and/or GPU miners with a specified hash rate.
- Mean Time to Repair (MTTR) will be significantly hastened, minimizing the cost of outages.
- Cost of ownership (COO) will be reduced to minimal levels.
- Return on Investment (ROI) will be achieved far faster than with traditional cloud-based solutions.

TITANIUM: The first blockchain start-up ever to acquire both Better Business Bureau (BBB) and Dun and Bradstreet (D&B) Accreditation



D&B Number: [080926636](#)

Better Business Bureau (BBB) - Business ID: [756765](#)

Federal Tax ID: 82-3126792

California Corporation Number: 4073241

## TITANIUM: The EHI Advantage

*What does EHI stand for? Excellence, Honesty and Integrity, because that is what we stand for.*

Unlike 99.99% of Blockchain start-ups and Initial Coin Offerings (ICOs), the Titanium Core Team is not composed of relative newcomers to technology. In stark contrast, the Titanium Core Team has over two-hundred (200) years of combined experience. This is also not the first technology company that Titanium's Founder and CEO, Michael Stollaire, has ever formed. In 1999, Mr. Stollaire founded EHI, a technology consultancy specializing in enterprise infrastructure management, which is still thriving and growing today with Michael at the helm.

Two decades of experience taught EHI's personnel the strengths of infrastructure-based enterprise management, but it also unveiled the weaknesses of several solutions and problems that had to be minimized at several past customers.

Taking these problems and weaknesses under consideration, The EHI Team formulated a new architectural design on an entirely new bleeding-edge platform, The Ethereum Blockchain, which mitigated all of these issues. It was called Titanium, because the objective was to make our clients' technology infrastructure stronger than steel.

Also, EHI and its consultants are known in the industry as top-tier, elite personnel, as shown by their impressive Client List and Testimonials.

Most Blockchain start-ups and ICOs face a very serious problem after they develop a viable product and or service: finding companies and people that will actually purchase them and use them.

Titanium will not have this problem. As EHI's sister company, Titanium will simply inherit EHI's clientele, and since EHI is considered a trusted source of excellent customer service and personnel, Titanium will also be held in high regard.

In the eyes and opinion of Mr. Stollaire, in fact, Titanium is an organic evolution of EHI, and should effectively be considered "EHI v2.0."

What follows is a short excerpt of some of EHI's customers, which Titanium will leverage immediately.

### CLIENTS

- Accenture
- Apple
- Applied Materials
- Boeing
- Cargill
- Citizens Bank

- eBay
- ERCOT
- Exelon
- General Electric
- Hewlett-Packard
- Honeywell
- IBM
- Intel
- Microsoft
- PayPal
- Pfizer
- Santa Barbara Bank and Trust
- Synchrony Financial
- The Bank of Scotland in Ireland
- The Federal Reserve Bank
- The Royal Bank of Scotland
- TrueCar.com
- Universal Studios
- Walt Disney





## THE TITANIUM TEAM

### TWO CENTURIES OF COMBINED EXPERIENCE

Titanium has many excellent assets and advantages, but nothing stands out more than The Titanium Core Team. Combined, The Titanium Core Team holds over two-hundred (200) years of combined experience in global infrastructure enterprise environments. Throughout seventeen years of experience in the technology sector, specializing in enterprise infrastructure management, Founder and CEO of Titanium, Michael Stollaire, made it a habit of identifying the most elite talent in technology, and made sure he kept in close contact with these individuals throughout the years. Over the course of time, Mr. Stollaire called in a favor or two to a handful on the list, to assist him with projects at Accenture, Boeing, Devon Energy, etc. However, with the advent of The Titanium Project, every resource that was accumulated over two decades was brought into the fold, forming an “A-Team” of the finest technology talent in the world.

<b>MICHAEL STOLLAIRE</b>	<b>RICHARD SILVER</b>	<b>CHRISTOPHER SNOOK</b>	<b>VINCENT FULLERTON</b>
President & CEO	COO/Director of Marketing	CTO	Technical Advisor (Pura Core Team & NEM Developer)

<b>STUART SIEGLER</b>	<b>JAMES CONNOLLY</b>	<b>JESSE URE</b>	<b>RITCHEY MULHOLLEM</b>
Ethereum Developer and Enterprise Automation Expert	Ethereum Developer	Ethereum Developer	Ethereum Developer



**NILO AMPUNAN**

Senior Enterprise  
Management Specialist



**RICHARD WHITAKER**

Senior Enterprise  
Management Specialist



**JASON MCBRIDE**

Senior Systems Engineer



**ERAN JENKINS**

Network Administrator



**DAVID ROWLEY**

Storage Management  
Expert



**ARTEM CHUPAKHIN**

Marketing Director, Russia



**DANIEL TIECH**

Graphic Designer



**JASON BRINK**

Graphic Designer |  
Technical Writer



**PARVEZ AHMED JALIL**

Community Manager



**DAWID BRZEZINSKI**

Community Manager



**DARIUSZ BANIEL**

Community Manager



## BACKGROUND

Since the advent of the idea of an interconnected network in the 1960s, very little has changed regarding internet infrastructure. While today's internet has infinitely more interconnected servers, home computers, and most importantly, users, the functional technological framework has not changed since the first envisioned by the computing pioneers of the '60s and '70s. Of course, server technology has improved since the first network arrays such as ARPANET, but the fundamental infrastructure hasn't changed – it is still based on large data centers and is centrally controlled by large companies who have their own interests at heart; these interests are not necessarily yours.

In 1999, the invention of virtualization software allowed for the creation of virtual machines (VMs) on high capacity servers. This saved companies around the world billions of dollars and allowed for the rapid growth of the consumer webhosting industry as hundreds of low traffic websites could be hosted in a very small amount of rack space as “servers” could be brought into being with the touch of a button. However, even in this situation, a disproportionate amount of power was placed in the hands of relatively few companies. Even today, up to 70% of internet traffic passes through server farms concentrated in Northern Virginia and operated by a single company.<sup>1</sup> While the status quo *works*, it is far from the ideal decentralized and democratized internet envisioned by our technological progenitors and which is only now becoming a possibility.

Welcome to the new world brought to you by Titanium Infrastructure Services (TBIS); We Are the Revolution.

## A NEW ERA

Today, the largest transportation company in the world owns no cars (Uber), the largest hospitality company on the face of the planet owns no hotels (AirBnB), the largest retailer carries no stock (Alibaba), and the world's most popular media network creates no content (Facebook). Clearly, we are living in a time of radical change. Why should internet infrastructure be any different?

TBIS is proud to introduce Infrastructure as a Service (IaaS) on the Ethereum blockchain platform. Today the internet, considered collectively, represents an estimated 11.5 million petabytes of data. As enormous as this it, it is dwarfed by the potential of a fully integrated and interconnected global network scattered

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<sup>1</sup> As of the time of writing, roughly 70% of all internet traffic passes through Amazon Web Services (AWS) server farms scattered throughout Northern Virginia. This centralization introduces a fundamental weakness to the entire infrastructure of the Internet; TBIS was designed to solve this problem.

Source: <https://www.washingtonian.com/2016/09/14/70-percent-worlds-web-traffic-flows-loudoun-county>

throughout the billions of desktops, servers, and networked devices. It is the leveraging of this system to which TBIS is dedicated. With completed proof-of-concept models created and functioning infrastructure forged by the greatest minds in the distributed computing industry, TBIS will completely revolutionize internet infrastructure.

Just as steel changed the building industry forever, Titanium will usher in a new era of network construction. With TBIS' proprietary IaaS, every device, from enterprise level on down, can be virtualized; routers, firewalls, and specialized equipment such as cryptocurrency miners, can exist in an entirely cloud-based environment. Paired with cutting-edge enterprise management and monitoring technology, this will create a shock-proof internet infrastructure that will be both lightweight and utterly revolutionary in scope. The distributed TBIS system will monitor the health of the network execute autonomous "healing" actions when specific weaknesses are detected. With Titanium Hydra Fault Tolerance, if a device falters, TBIS will have already shifted load away and onto another network of redundant nodes. If a potential security problem arises, the TBIS system will work automatically to limit the potential impact of attacks such as DDOS or other address-specific attacks; it is impossible to overwhelm a piece of equipment that exists only on the ether.

The backbone of the TBIS system is the Service Level Agreement (SLA) which can be constructed to virtually guarantee 100% uptime of all devices, applications, and mission-critical services. The Titanium Control Panel will make it possible for even an inexperienced user to create SLAs that will be able to support enterprise-level support and network infrastructure for any person or company that has decided to be a part of the coming Titanium Revolution.

**In short, TBIS IaaS will render current infrastructure services, from web hosting to any network support device, archaic, obsolete and utterly useless. Just as iron supplanted bronze, Titanium is elemental to the future of the internet.**

## MISSION STATEMENT

### Our Mission:

*"Our mission is to leverage the power of the immutable blockchain to provide virtual infrastructure services for businesses and individuals, creating a Titanium clad guarantee of reliability which had previously been wholly impossible."*

Our team firmly believes in the disruptive power of the blockchain. Already, global business and finance are being transformed and disrupted by blockchain technologies. TBIS has already completed trials that demonstrate that it is possible to

create entire infrastructure systems on distributed and redundant systems. Imagine a world in which businesses no longer need to have a networking closet full of expensive and temperamental equipment that rapidly becomes obsolete, requires tender care and reduces productivity through down time or general digital surliness. All of the decaying equipment with yellowing casings can be replaced with digital titanium for a fraction of the cost of acquisition and maintenance of hardware infrastructure, all while increasing uptime and reliability and completely eliminating maintenance.

TBIS's Infrastructure as a Service (IaaS) is a powerful and timely platform which is needed to usher in a new era of productivity for companies and individuals around the world by providing end-to-end internet infrastructure.

## CORE OBJECTIVES, PRODUCTS AND SERVICES

**Titanium Infrastructure Services (TBIS) has the following core components:**

### Infrastructure as a Service (IaaS)

The core competency objective and primary goal of TBIS is the creation and propagation of a shockproof distributed network infrastructure capable of replacing the bloated and inefficient hardware foundation upon which the internet of today is based. *In essence: to build a better internet that cannot be controlled or destroyed by anyone and is open for all.*

**This will include but is not limited to:**

- a) Maintaining and Enhancing TBIS' existing enterprise virtualization software package which enables the creation of network components such as servers, routers, switches, etc., in a distributed environment
- b) Building and remaining as the *de facto* platform for creating, maintaining, patching and upgrading distributed enterprise IT environments
- c) Making it quick and simple to virtualize entire enterprise-level infrastructure environments while simultaneously decreasing the cost-to-consumer and downtime while increasing network reliability, security, and convenience
- d) Website hosting through the Titanium Virtual Server System will be more reliable than existing shared hosting because unlike a traditional server, which can go down, the TBIS servers will guarantee constant uptime and dramatically increased security
- e) Implement the cutting-edge TBIS Enterprise Management Software with autonomous healing and security functions include in the Titanium Hydra Fault Tolerance Suite for all monitored elements and network components

- f) Platform as a Service (PaaS) or application platform as a Service (aPaaS) is a category of cloud computing services that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app. PaaS can be delivered in two ways: as a public cloud service from a provider, where the consumer controls software deployment with minimal configuration options, and the provider provides the networks, servers, storage, operating system (OS), middleware (e.g. Java runtime, .NET runtime, integration, etc.), database and other services to host the consumer's application; or as a private service (software or appliance) inside the firewall, or as software deployed on a public infrastructure as a service.

### Platform as a Service (PaaS)

A completely decentralized development and deployment environment, with resources that enable you to deliver everything from simple Distributed Applications (dApps) to sophisticated, decentralized enterprise applications. You purchase only the resources you need from Titanium on a pay-as-you-go basis and access them over a secure Internet connection.

Like IaaS, PaaS includes infrastructure — servers, storage, and networking—but also middleware, development tools, business intelligence (BI) services, database management systems, and more. PaaS is designed to support the complete web application lifecycle: building, testing, deploying, managing, and updating.

PaaS allows you to avoid the expense and complexity of buying and managing software licenses, the underlying application infrastructure and middleware or the development tools and other resources. You manage the applications and services you develop, and Titanium manages everything else.

### Common PaaS Scenarios

Organizations typically use PaaS for these scenarios:

#### *Development Framework*

PaaS provides a framework that developers can build upon to develop or customize cloud-based applications. Similar to the way you create an Excel macro, PaaS lets developers create applications using built-in software components. Blockchain features such as decentralization, scalability, high-availability, and multi-tenant capability are included, reducing the amount of coding that developers must do.

### ***Analytics or Business Intelligence (BI)***

Tools provided as a service with PaaS allow organizations to analyze and mine their data, finding insights and patterns and predicting outcomes to improve forecasting, product design decisions, investment returns, and other business decisions.

### ***Additional Services***

PaaS providers may offer other services that enhance applications, such as workflow, directory, security, and scheduling.

## **Advantages of PaaS**

By delivering infrastructure as a service, PaaS offers the same advantages as IaaS. But its additional features—middleware, development tools, and other business tools—give you more advantages:

### ***Cut Coding Time***

PaaS development tools can cut the time it takes to code new apps with pre-coded application components built into the platform, such as workflow, directory services, security features, search, and so on.

### ***Add Development Capabilities Without Adding Staff***

Platform as a Service components can give your development team new capabilities without your needing to add staff having the required skills.

### ***Develop for Multiple Platforms—including Mobile—More Easily***

Titanium will give you development options for multiple platforms, such as computers, mobile devices, and browsers making cross-platform apps quicker and easier to develop.

### ***Use Sophisticated Tools Affordably***

A pay-as-you-go model makes it possible for individuals or organizations to use sophisticated development software and business intelligence and analytics tools that they could not afford to purchase outright.

### ***Support Geographically Distributed Development Teams***

Because the development environment is accessed over the Internet, development teams can work together on projects even when team members are in remote locations.

### *Efficiently Manage the Application Lifecycle*

PaaS provides all of the capabilities that you need to support the complete web application lifecycle: building, testing, deploying, managing, and updating within the same integrated environment.

### Desktop as a Service™

**(DaaS™):** The creation of a distributed internet infrastructure also makes it possible to host entire user computers on the Titanium Cloud. Using the custom designed ultra-light TitaniumOS, TBIS users will be able to access their entire computer from any publicly available terminal or smartphone. Through navigating to their personal encrypted Titanium Desktop, they will be able to use their computer just as they would use any website. Titanium Virtualization Technologies will protect their data, ensure uptime and reliability, and make viruses and targeted attacks a thing of the past through implementation of the Titanium Hydra Fault Tolerance Suite.

Leveraging state-of-the-art SHAKE256 Titanium Sponge Cryptographic Techniques, the user's files and TitaniumOS will be future-proof encrypted and yet will remain accessible to the user with the Titanium Key. This will combine ultimate encryption and security while also allowing for ease of access.

### Company as a Service™

**(CaaS™):** This is an automated wizard which will allow a user to start a new business from square one through leveraging the power of Smart Contracts. Anyone who has attempted to start a business in the past is aware of the challenges presented by meeting legal requirements to establish a business.

**Through CaaS, TBIS will be able to supply entrepreneurs with the critical support they need to get their business off the ground by completing tasks such as:**

- a) Registering for Business Licenses
- b) Creating Business Bank Accounts
- c) Filing Trademarks and Patents
- d) Incorporating
- e) Leasing of office space or equipment
- f) Hiring employees or independent contractors
- g) Securing advertising space
- h) Domain registration and host acquisition
- i) Etc.

From a legal standpoint, these Smart Contracts will save business more than just time in the creation of businesses. Smart Contracts, encoded in the immutable TBIS Blockchain, cannot be tampered with or altered in any way. Once a contract has been signed, it has been etched into Titanium and will exist in perpetuity.

### CryptoEscrow™

This service allows the TBIS user to use any supported cryptocurrency to purchase items, auction items, etc. and leverage an Ethereum-based escrow service based on the Smart Contract. This would enable buyers and sellers to conduct transactions free of the worries typically associated with online purchases.

The Titanium CryptoEscrow™ would make it possible to:

- j) Buy and sell online for any amount in any approved cryptocurrency without fear of non-delivery. This system is designed to use a very simple smartphone interface that will require no experience or coding background. It is so easy, your grandmother could do it.<sup>2</sup>
- k) Generate Titanium Smart Contracts using the TBIS Blockchain and the Titanium DEX (below) to manage payment and logistics. This contract will consist of a two-part SHA256 hash which will be given to both buyer and seller, and only once these two pieces are united and delivery takes place will the funds be released from the escrow.

### Bring Your Own Cloud™

**(BYOC™):** Beneath the surface of the Titanium Infrastructure there will be an entire suite of services that will change the computing world. Central to this effort is the desire to help users create a truly private computing environment. This can be achieved through BYOC.

People can join the BYOC secure computing environment by contributing hashpower to the network. BYOC is based on a PoW ERC20 token which generates an everchanging hash for communications encryption. When a user joins, they will be connected to a service that will download an open source Linux VPN application. Users can opt to use their own cryptocurrency miner as long as it meets the minimum requirements for OS platform, CPU, RAM, etc. Alternatively, of course, one of the many

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<sup>2</sup> How this might work in the real world is that Alice might hire a courier firm to deliver to Bob a guitar he purchased from Alice – under instructions to only hand over the guitar once Bob has given them the pre-image which fulfils  $\text{SHA256}(\text{key}) = \text{HASH}$ . Once they have this key they may send a transaction to the blockchain themselves (or have Alice do it), to release the cryptocurrency. The end result is that Bob has his prized guitar, and Alice has received her payment in the cryptocurrency of her choice. However, if Alice does not receive the correct random number from Bob during an allotted time period, the contract is voided, and the cryptocurrency is returned to Bob. An example of such an escrow contract coded in the Solidity coding language can be found in the appendix at the end of this White Paper. With that said, TBIS is actively working on strategic partnerships with other companies (also delineated below), one of which provides an intuitive UI that anyone with basic computer experience can use to create smart contracts. No Solidity, etc. coding experience is necessary. Your Grandmother could do it.

virtual miner emulation choices available via the MlaaS TBIS offering could be leveraged. Please note that the BYOC service can be used for many other functions, such as web servers, file servers, etc. A cryptocurrency mining device is only used as an example. TBIS will provide a Centos Linux OS ISO image which has a special kick-start function, to bring the device online and initiates a minimum amount of hashing on the local GPU. At this point, the kickstart server can deploy to any server/device you connect in your private cloud environment. For mining hardware, BYOC will facilitate high-end servers being used as cryptocurrency miners.

For an ultra-secure computing environment, users can join the TBIS Instaminer Network. Based on micro-computers, which can be acquired from TBIS, a security context with the peer-to-peer blockchain can be established. If someone attempts to add a device via a method that does not include the TBIS micro-computers, the device will not be allowed to communicate on the network. The TBIS micro-computer will have an open VPN for security and will be able to deploy images to servers and miners in the local environment. Once the security context is established, files beyond the vanilla Centos OS will be obtained via our own git repository and docker swarm infrastructure. In short, the use of the TBIS micro-computer will make setting miners and servers up completely automated.

### DEXchange™

Cryptocurrencies and blockchain technologies are centered around decentralization. However, many cryptocurrency exchanges of today are based on centralized systems which are controlled by outside entities. The TBIS Titanium Exchange will provide initial support for the top twenty (20) fiat currencies used worldwide, and allow for exchange trading with the top two-hundred (200) cryptocurrencies as per <https://www.coinmarketcap.com> in an entirely decentralized fashion. Of course, TBIS reserves the right to increase or decrease the number of fiat currencies and cryptocurrencies it supports with future releases of the product. Also, DEXchange™ will charge the lowest transaction fees, and fees in general, in the world, guaranteed.

### Instant ICO Incubator (III)™

At TBIS, we know how hard it can be to get everything together for a token launch. If you have a brilliant technical idea, but need the marketing and organizational backing to bring it to life, the Titanium Instant ICO Incubator™ will take the guesswork out your token launch through providing end-to-end launch services. Also, a *Titanium Clad Accreditation* will be created and granted to ICOs that have undergone a deep-dive due diligence by Titanium personnel. There will be no guesswork, as to which ICOs are credible and primed for investment. For instance, where these accreditations are supported, Titanium will require our ICOs to have both a Better Business Bureau (BBB) and Duns & Bradstreet accreditation. Titanium does all the work for you, so your investments are as safe as possible.



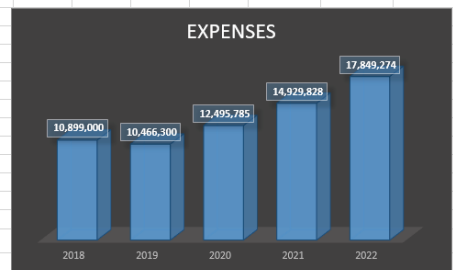
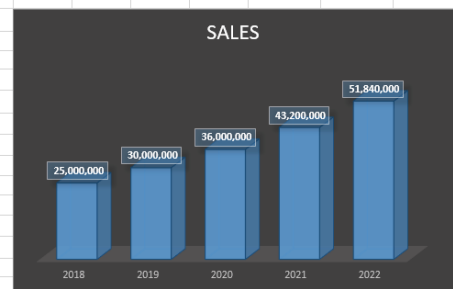
The over-arching goal of Titanium Blockchain Infrastructure Services is to provide the capability for virtualization of equipment, running the gamut from simple routers, to specialized equipment such as cryptocurrency miners. Through virtualization, TBIS will be able to help guarantee that your equipment will stay updated, patched, and ready to function to protect the interests of your business.

For example, in order to remove the hazards associated with new technology being introduced that makes current mining rigs obsolete. With TBIS IaaS, you would simply run a wizard in our UI to replace a GPU-based mining rig with an ASIC mining device. When new ASIC boards are released that are more energy efficient and have a significantly greater hashing rate, the virtual boards can be upgraded, etc., by drawing on our global network of computing power.

## FIVE-YEAR FINANCIAL PROJECTIONS

Titanium Blockchain Infrastructure Services Inc  
Statement of Income & Expense  
5 Year Company Projections

	2018	2019	2020	2021	2022
<b>Ordinary Income/Expense</b>					
<b>Income</b>					
Sales	25,000,000	30,000,000	36,000,000	43,200,000	51,840,000
<b>Total Income</b>	25,000,000	30,000,000	36,000,000	43,200,000	51,840,000
<b>Expense</b>					
Advertising and Promotion	530,000	636,000	763,200	915,840	1,099,008
Automobile Expense	180,000	216,000	259,200	311,040	373,248
Compute, Infrastructure and Internet	2,500,000	2,750,000	3,300,000	3,960,000	4,752,000
Depreciation Expense	25,000	25,000	25,000	25,000	25,000
Employee Benefits	300,000	360,000	432,000	518,400	622,080
Insurance	48,000	57,600	69,120	82,944	99,533
Interest Expense	40,000	40,000	40,000	40,000	40,000
Legal & Professional Services	230,000	276,000	331,200	397,440	476,928
Office Expenses/Leasing	260,000	312,000	374,400	449,280	539,136
Office Supplies	130,000	156,000	187,200	224,640	269,568
Outside Services	1,800,000	2,160,000	2,592,000	3,110,400	3,732,480
Payroll Tax	250,000	300,000	360,000	432,000	518,400
Rent	120,000	120,000	120,000	120,000	120,000
Research & Development	230,000	276,000	331,200	397,440	476,928
Salaries & Wages	2,600,000	3,120,000	3,744,000	4,492,800	5,391,360
Security Expense	50,000	52,500	55,125	57,881	60,775
Taxes & Licenses	1,350,000	1,620,000	1,944,000	2,332,800	2,799,360
Telephone	36,000	43,200	51,840	62,208	74,650
Training & Education	120,000	144,000	172,800	207,360	248,832
Travel	280,000	336,000	403,200	483,840	580,608
Utilities	120,000	126,000	132,300	138,915	145,861
<b>Total Expense</b>	11,199,000	13,126,300	15,687,785	18,760,228	22,445,754
<b>Net Ordinary Income</b>	13,801,000	16,873,700	20,312,215	24,439,772	29,394,246
<b>Net Income</b>	13,801,000	16,873,700	20,312,215	24,439,772	29,394,246



## TOKEN MECHANICS AND SALE DETAILS

This Token Mechanics and Sale Details summary does not constitute an offer to sell or a solicitation of an offer to buy TBIS's token, called "BAR", and is provided for informational purposes only in respect of TBIS's platform. The following summary reflects TBIS's current expectations with respect to token mechanics and sale of BAR, which are subject to change.

Soon, the TBIS token (BAR) will be sold. As part of this sale, a fixed pool of BAR will be generated. **No further BARs will be created in the future. BAR will be a deflationary currency.** Once the sale concludes, a portion of BAR tokens will be allocated and given to the TBIS team as an incentive for the success of our platform, and a separate portion will be held as a reserve pool and expenditure fund. The community will hold 60% of all BAR, the TBIS team will hold 20% of BAR (subject to a freeze period), 10% of BAR will be reserved for various community bounties and 10% of BAR will be allocated for the reserve pool.

The BAR cryptocurrency serves several key operational functions with respect to the TBIS platform for its holders:

1. BAR will be the only means of paying for products and services within the TBIS ecosystem.
2. BAR owners will be allowed to participate in milestone completion votes, which will be used to unlock reserves for BAR expenditure.
3. BAR will serve as the primary mechanism for verifying third-party marketplace smart contracts in a decentralized and secure way.
4. When TBIS smart contracts are deployed by users, the BAR that is paid as a fee will be re-sold and circulated back into the ecosystem at market value.

### Titanium BAR Token Sale

BAR tokens will be offered at an exchange rate of 700 BAR for 1 ETH, for a sale duration of approximately sixty (60) days. During the first 72 hours, all BAR purchased will be sold at a reduced rate. The sale is slated to begin on **January 1, 2018, at 1PM (GMT-7)**. A hidden, undisclosed hard cap will be cryptographically signed using the *keccak256* hashing algorithm and released as part of the smart contract. If this cap is reached, then it will be revealed and the sale will immediately end. Otherwise, the sale ends once the sale period has ended. The cap can be verified by comparing the revealed value with the hash included in the original contract. A security cap of 350,000 ETH will be hardcoded into the contract, as a safety net against unforeseen complications. **This security cap is not the hard cap for TBIS, and is not intended to be reached.**

The TBIS team has pre-determined a minimum goal (denoted in US Dollars) that represents the runway necessary for the core TBIS platform to be finished and released.

If the minimum goal is not reached by the end of the sale duration, then all contributed Ether will be marked for a refund. Anybody who contributed will be able to withdraw their Ether from the sale contract. The soft cap figure will be \$1,000,000. The hard cap figure will be \$35,000,000.

### Titanium BAR Pre-Sale and “Early Bird” Bonus Periods

Before the January 1, 2018 BAR token sale, a pre-sale period of approximately one month will transpire. During that time, investors that are willing to invest a minimum of \$5,000 in the project will receive a 20% bonus. This would equate roughly to **1.2 BAR for \$1 USD**.

Three (3) bonus periods will be offered at the beginning of the sale to provide early bird contributors a small incentive. During the first 24 hours of the funding period, the exchange rate will be **1.15 BAR for \$1 USD**, a 15% bonus. For the 48 hours after that, the exchange rate will be **1.1 BAR for \$1 USD**, a 10% bonus. For the 48 hours after that, the exchange rate will be **1.05 BAR for \$1 USD**, a 5% bonus. After the early bird periods, the price of BAR will remain at 1 BAR for \$1 USD for the rest of the sale.

**Note:** *The exact start date, duration of the discount period, and duration of the sale will be determined by block numbers, and thus are approximated with an accuracy of a couple of minutes.*

Half of the tokens (10% of the total token pool sold) retained by the TBIS team will be frozen for one year (12 months) from the end of the sale, with the other 10% remaining frozen for an additional year (a total of 24 months). This freeze period ensures that no developer tokens will enter circulation before the TBIS platform is live.

Any tokens purchased as part of the sale will be immediately allocated to the buyer, but will be locked from transfers until the minimum goal has been reached. In a short amount of time after the sale starts, these tokens will be spendable in the TBIS mainnet demo app, once the minimum cap is reached.

### Referral Bonus

During the pre-sale and general ICO crowdfunding periods, a referral bonus of 5% will be paid to existing Titanium BAR Token owners, if they refer other individuals to the Titanium BAR Token sale that proceed to purchase the minimum amount of Titanium BAR Tokens, equivalent to 0.01 ETH or greater.

## Secondary Milestone Voting

The TBIS team is committed to delivering on our promises. We believe in our product, and wish to show good faith by remaining accountable to its success. Thus, we are implementing a completion-based release model. Active users who are involved in the TBIS platform will be given a vote in determining if deadlines and milestones have been met. The TBIS team will open votes for each milestone as they are released, and TBIS users will have a window of time to signal the milestone as “complete” or “incomplete”. If a majority of votes signal the feature as “complete”, the reserves associated with that milestone stage will be released.

In the event that a milestone is deemed “incomplete”, we will engage with the community for feedback to determine our shortcomings, and address those as necessary. The vote will then be repeated after a cooldown period, up to a maximum of three votes in total. In the case of three failed votes, the lock will be released at the discretion of the team, no less than one month after the final completion vote. This protects the long-term functionality of the TBIS platform from being locked over vote manipulation or contentious issues.

The specific milestones that have voter-locked access attached are noted in Figure 1. The TBIS team will lock 30% and 10% of the token sale proceeds until the completion of the first and second noted milestones in Figure 8.1, respectively. **The specific amounts locked may change according to the results of the token sale and the TBIS team’s needs. Once finalized post sale, these numbers will not change.**

## OPERATIONS AND ROADMAP

Our team wants to proceed with due care and caution to minimize potential asset loss for users. As these smart contracts are deployed on the Ethereum blockchain as immutable code, it is particularly crucial that everything is thoroughly battle-hardened and easily updateable to handle bugs. As part of the development process, we will source independent professional software auditing for all smart contracts, in addition to our internal verification pipeline – this comprehensive testing routine is allocated its necessary portion of time and is reflected in the paced release schedule. TBIS features will be released in the following order:

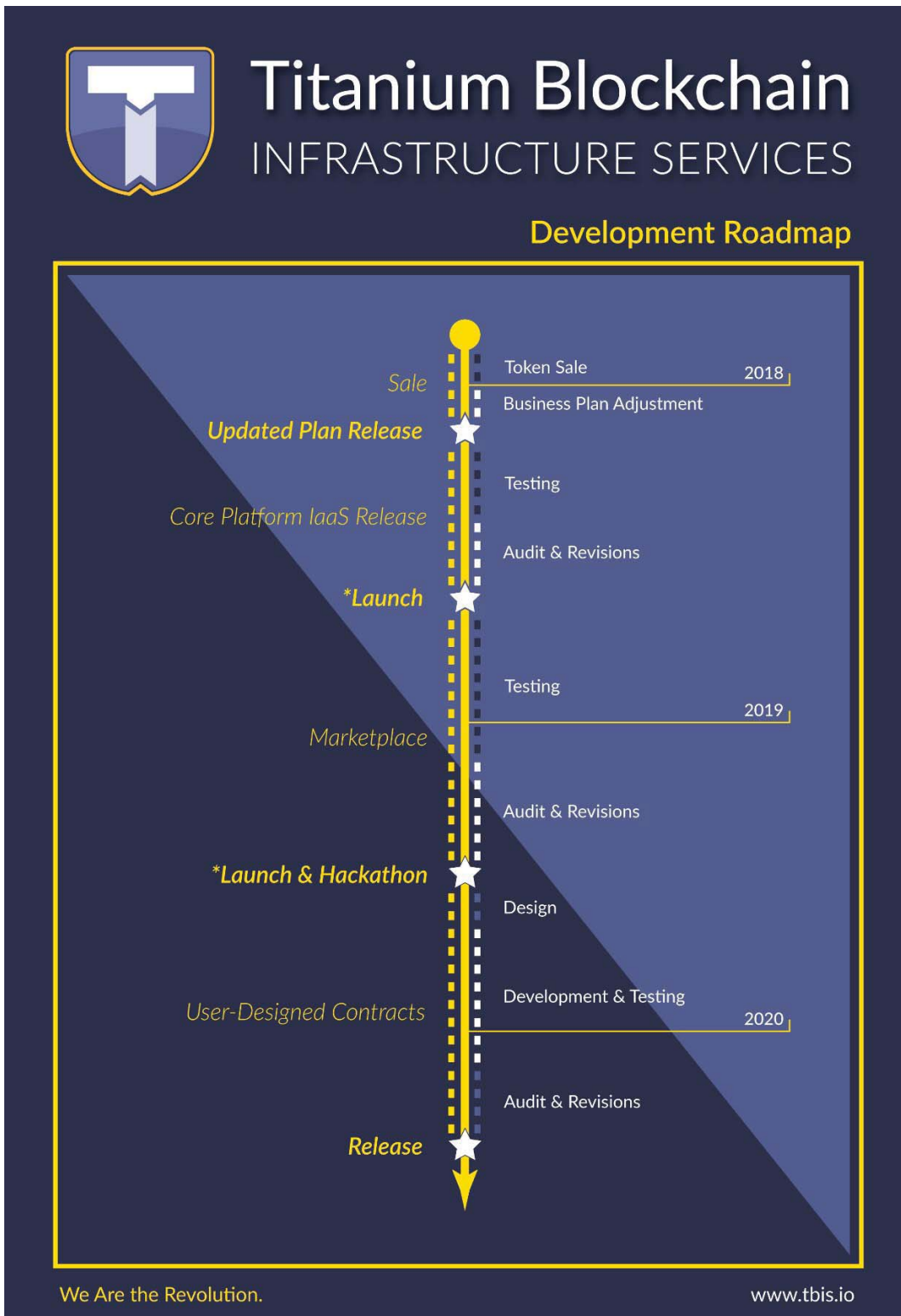


Figure 1: The feature release schedule for the TBIS platform. Vote-based unlocking will occur for the milestones marked with an asterisk “\*”.

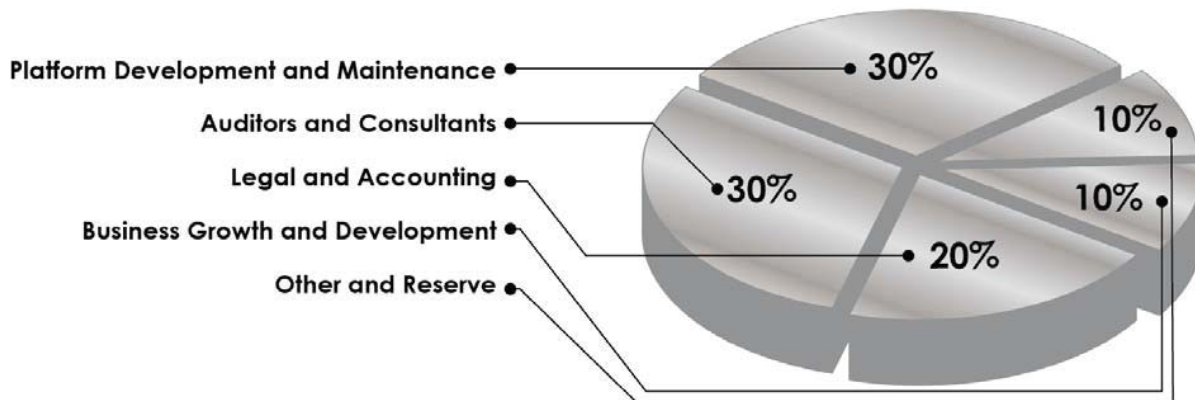


Figure 2: The expected expenditures in percent of total costs for the TBIS platform.

## KEY ACTIVITIES

**Disclaimer:** The projected financial expenditure plan and release timeline are only estimates and serve to illustrate the general plan for the future of TBIS. We reserve the right to make adjustments as reasonable based on available resources and other constraints.

Our projected cost breakdown is shown in Figure 2. We briefly summarize core activities and specific expenditures below.

### Platform Development, Testing, and Maintenance

Further development and continued maintenance of the core TBIS platform is the primary cost that TBIS will expense in the near future. This allocation of resources will be put towards the compensation of the core TBIS team, and any future personnel who are signed onto the TBIS team, as necessary. This will primarily consist of Software Engineers, Platform and Infrastructure Engineers, Customer Service and Support Specialists, and Product Strategists.

### Auditing

To minimize risks to TBIS users, we have reached out to multiple trusted security and software verification firms which specialize in smart contract auditing. These auditors will be responsible for verifying our smart contracts before deployment,

in addition to the rigorous set of internal testing performed by the TBIS team. Given the sensitive nature of TBIS's platform, we believe that it is better to err on the side of caution and will devote all of the necessary resources to ensuring a safe and secure platform for all TBIS users.

## Business Growth and Development

We will be marketing our platform to ensure healthy growth. This is not only important for ensuring that TBIS remains the best platform for deploying smart contracts, but also for marketplace participants, as their ability to earn BAR will depend entirely on the size of the user base. We intend to acquire new users via targeted marketing, first focusing on targeting early adopters and businesses already building on blockchain technology. We will quickly extend our efforts towards additional channels to bring new users to both the TBIS platform and Ethereum in general. We intend to appeal both personal uses as well as businesses. That said, we view business growth in a holistic manner. We believe in demonstrating value first, as well as attracting attention through collaboration. As noted in our roadmap, we intend to organize at least one hackathon to jump start the contract marketplace. For this event, we intend to create voter tokens and to have participants choose winners. These winners will receive free auditing and early availability of their developed smart contracts on the marketplace. We will also form partnerships with other blockchain innovators to create mutual value for our users. We will focus our business development efforts on those technologies with identifiable synergies and compatibilities with TBIS. We put open and honest relationships first, and seek to mutually encourage innovation and growth.

## Legal

Our platform will require users have a clear understanding of the rights and responsibilities of all parties involved in using TBIS. Once our token sale has concluded, we will invest the necessary time and capital in developing user agreements for smart contract deployment and marketplace sellers. Future legal costs are also accounted for here.

## Future Goals

Bugs and unforeseen flaws are an inevitable risk with any programming code, regardless of how thoroughly they have been vetted and reviewed. TBIS will strive to provide its users with the maximum amount of assurance possible by implementing enhanced security measures in any contract where appropriate. The ability to stop a rogue contract in a structured, pre-determined way will prevent high-value losses and ensure a safe platform for everyone, without resorting to or relying on controversial hard-forks. We also recognize that the

technology landscape is quickly evolving, and that our platform infrastructure must remain agile and adapt to changing conditions. As new technology and solutions such as decentralized hosting and storage stabilize and gain adoption, we intend to move more and more of the TBIS platform to these services. This will ensure that our platform remains the preferred solution for smart contract deployment.



## LEGAL CONSIDERATIONS

The most current version of this document, accessible on the web at:

<https://tbis.io/titanium-infrastructure-services-white-paper-2/>

The version available at that URL represents the only valid version of our whitepaper.

BAR are only functional tokens intended to be used to compensate TBIS for use of its platform. These tokens will give access to the TBIS mainnet demo app as soon as the minimum cap is achieved. BAR are not for speculative investment. No promises regarding value or future performance are made regarding BAR. No promises regarding any particular value of BAR are made. No other rights associated with holding BAR are given. Proceeds of the token sale may be spent as the company sees appropriate, which may change as deemed necessary in the maturation and advancement of TBIS.

Our team is investing heavily in the safety and security of the services TBIS provides, as detailed previously. However, we cannot protect against all possible sources of error, especially those in parts of the technology stack we cannot control. Therefore, all risks assumed by using the TBIS platform in any capacity, including but not limited to deploying smart contracts, creating and destroying virtual devices, and collecting BAR through the marketplace are solely assumed by the user. Users must measure the gravity of potential value loss against their trust in the services TBIS will provide and act as they see appropriate. Never trust anything that one cannot afford to lose to any entity, TBIS or otherwise, without fully understanding all of the mechanics involved in the whole procedure. BAR tokens are meant to be held and used by those well-versed in cryptographic tokens, only for the purpose of accessing the services offered on the TBIS platform.

TBIS and its team must abide within the laws set forth in its operational country(ies).

We intend to provide our services in as decentralized a fashion as reasonably feasible, but our legal entity must act according to the rules and bounds encoded in applicable laws. This includes but is not necessarily limited to laws governing financial operations, employment, fee charging, and sales.

## POTENTIAL STRATEGIC PARTNERSHIPS THAT ARE UNDER SERIOUS CONSIDERATION

### 1. BlockCAT:

A simple UI that is an Ethereum smart contract creation wizard, allowing users with no coding experience whatsoever to create smart contracts.

<https://blockcat.io/>

### 2. Golem:

Provisions decentralized CPU and RAM/Memory resources, at a fraction of the cost of current cloud-based systems.

<https://golem.network/>

### 3. Sia:

Provisions decentralized storage at a fraction of the cost of current cloud-based services such as Dropbox or Amazon Web Services.

<http://sia.tech/>

### 4. Storj:

Provisions decentralized storage at a fraction of the cost of current cloud-based services such as Dropbox or Amazon Web Services.

<https://storj.io/>

### 5. ShapeShift:

A cryptocurrency transformation service, which would allow TBIS to accept most existing cryptocurrencies as payment for our products and services.

<https://shapeshift.io/>

## APPENDIX A: Example Solidity Escrow Contract

```

contract decentralisedAuction{
    struct auction {
        uint deadline;
        uint highestBid;          address
        highestBidder;           uint
        bidHash;                 address recipient;
    }
    mapping(uint => auction) Auctions;
    uint numAuctions;

    function startAuction(uint timeLimit) returns (uint auctionID){
        auctionID = numAuctions++;
        Auctions[auctionID].deadline = block.number + timeLimit;
        Auctions[auctionID].recipient = msg.sender;
    }
    function bid(uint id, uint biddersHash) returns (address highestBidder){
        auction a = Auctions[id];
        if (a.highestBid + 1*10^18 > msg.value || a.deadline > block.number)
        {
            msg.sender.send(msg.value);
        }
        return a.highestBidder;
    }
    a.highestBidder.send(a.highestBid);
    a.highestBidder = msg.sender;
    a.highestBid = msg.value;
    a.bidHash = biddersHash;
    return msg.sender;
}
    function endAuction(uint id, uint key) returns (address highestBidder){
        auction a = Auctions[id];
        if (block.number >= a.deadline && sha3(key) == a.bidHash) {
        a.recipient.send(a.highestBid);
            clean(id)
        }
    }
    function clean(uint id) private{
        auction a = Auctions[id];
        a.highestBid = 0;
        a.highestBidder =0;
        a.deadline = 0;
        a.recipient = 0;
        a.bidHash = 0;
    }
}

```

3  
}

TBIS

}  
}

TBIS

# **EXHIBIT 15**

# Titanium Blockchain

INFRASTRUCTURE SERVICES



TBIS

WHITE PAPER

TBIS

v2.7 - January 16, 2018



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## DOCUMENT REVISION HISTORY

Version	Modifications Made	Author(s)
v1.0	Initial Draft	Michael Stollaire/Jason Brink
v1.1	DEXchange Added to Titanium's List of Products and Services	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.2	Titanium BAR Token distribution percentages modified to leave more to reserve, Referral Bonus program added, Titanium Storage added as a potential strategic partner, ZCash added as an approved currency to purchase BAR with, Pre-Sale period extended, due to the rapid increase in Bitcoin's (BTC) price causing a subsequent dramatic decrease in Ethereum's (ETH) value and the minimum amount of BTC/ETH raised to consider the ICO a "success" decreased, because of BTC's rapid price increase (doubled in price since release of v1.0 of this White Paper). Also, added a new section: "The EHI Advantage."	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.3	Increased the bonus for using the BAR within The Titanium Ecosystem to 10% from 5%. Also added verbiage to "The EHI Advantage" Section of the White Paper. Added verbiage about a defined soft cap of money that the project must raise for the project to be viable.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.4	Added Table of Contents	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.5	Moved Content, Added New Citations, Client Logos, etc.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.6	Changed security cap to 350,000 ETH.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.7	Added a figure of \$35,000,000 for a hard cap.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)





v1.8	Added emphasis on Titanium being the first blockchain start-up ever, to obtain D&B and BBB accreditation.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.9	Replaced old roadmap Figure 1 image with new roadmap image.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.0	Based on audit results, added more corporate information, such as Federal Tax ID, California Corporation ID, etc. Also, added more Titanium Core Team information as well.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.1	Corrected DEXchange information, regarding the number of cryptocurrencies listed, the number of fiat currency pairs supported, and the guarantee that DEXchange could potentially charge the lowest transaction fees in the world, guaranteed.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.2	Added Five-Year Financial Projections for the Titanium Project.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.3	Re-Corrected an Incorrect Statement about the BAR Token, as it could potentially be the only currency that can be used in the Titanium Ecosystem.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.4	Added verbiage for Platform as a Service (PaaS), as an augmentation and synergistic element of IaaS.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)



v2.5	<p>Added additional verbiage, regarding PaaS, more information about what cloud-based issues that Titanium would solve, greater detail as to how Titanium's deployment on blockchain functions and solves current problems, removed a subsection of EHI-based verbiage, pegging BAR to the USD vs ETH, Added "Why Titanium?" section, added verbiage about what happens in the case all BARs are not sold, the incentive for providing decentralized hardware, etc.</p>	<p>Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)</p>
v2.6	<p>Added Graphics for Payment Incentives for High-End Hardware in the Titanium IaaS/PaaS infrastructure and an overview graphic of IaaS/PaaS itself. Also, added graphics as to how decentralized resources, e.g., processor, memory and storage are delivered to the Titanium Infrastructure.</p>	<p>Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)</p>
v2.7	<p>Various wording changes, format changes, content moved/updated, etc.</p>	<p>Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)</p>

## WHY TITANIUM?

- Titanium is first-to-market, regarding providing Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) on blockchain, our core competencies.
- Decentralized resources could potentially allow Titanium to charge at least 50% less than our competitors.
- Because of its decentralized nature, Titanium could potentially be able to promise customers uptimes of 99.99% for all services, applications, devices, etc.
- Cloud-based IaaS and PaaS are centralized, and therefore prone to [outages](#), performance degradation, and typical hacker attacks, such as Distributed Denial of Service (DDoS).
- Titanium is the sister company of EHI, the first technology company that our Founder and CEO started, which has been in business close to two decades and can give a warm handoff of Fortune 500, Education and Government clients to Titanium.
- The Titanium Core Team has over two-hundred (200) years of experience, and are considered to be in the top 1% of their respective technology fields.
- Titanium is the very first blockchain start-up to achieve both Dun and Bradstreet (D&B) and Better Business Bureau (BBB) accreditation.



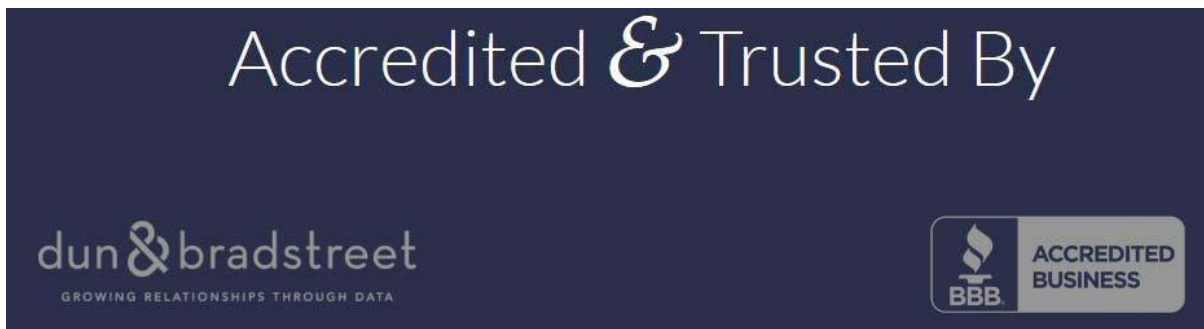
Figure 1: Titanium ~ Setting a New Precedent in Blockchain Technology

## EXECUTIVE SUMMARY

### Titanium Infrastructure Services: The Ultimate Strength of the Blockchain... Unleashed™.

- Titanium Blockchain Infrastructure Services (TBIS) finally answers the question: “What if an entire IT enterprise could be decentralized, including data centers, firewalls, load-balancers, routers, switches, network appliances and servers?”
- TBIS intends to disrupt the current market leaders in the provisioning and virtualization space.
- Our core product, Infrastructure as a Service (IaaS) will potentially be released as a Minimum Viable Product during Q1 2018, before March 1<sup>st</sup>.
- TBIS is developed on the blockchain platform, so all changes in the environment and assets could potentially be recorded on an immutable ledger, to correlate with standard IT change management and ITIL methodologies.
- Follow-the-Sun enterprise management and monitoring services, autonomous healing, and optimized disaster recovery and redundancy mechanisms could potentially allow TBIS to potentially provide a significantly higher percentage of uptime of devices, applications and services, making them a market leader.
- Since TBIS would operate on the blockchain, the days of Distributed Denial of Service (DDoS) attacks and other black hat hacker exploits would effectively be over.
- Most, if not all, of the issues associated with similar cloud server products would be solved.
- The TBIS Administrative User Interface (UI) is intuitive and the simplest to use in the industry, and could potentially be available as a thick client, web-based thin client, and mobility applications on both Apple’s iOS and Android platforms.
- UI wizards could potentially allow administrators to create any component of their infrastructure in mere minutes, designed in alignment with their growth factors, technical requirements and business drivers.
- Mean Time to Repair (MTTR) is projected to be significantly hastened, minimizing the cost of outages.
- Cost of ownership (COO) could potentially be reduced to minimal levels.
- Return on Investment (ROI) for clients that migrate to the Titanium IaaS platform, could potentially be achieved far faster than with traditional cloud-based solutions.

TITANIUM: The first blockchain start-up ever to acquire both Better Business Bureau (BBB) and Dun and Bradstreet (D&B) Accreditation



D&B Number: [080926636](#)

Better Business Bureau (BBB) - Business ID: [756765](#)

Federal Tax ID: 82-3126792

California Corporation Number: 4073241

## TITANIUM: The EHI Advantage

*What does EHI stand for? Excellence, Honesty and Integrity, because that is what we stand for.*

Unlike 99.99% of Blockchain start-ups and Initial Coin Offerings (ICOs), the Titanium Core Team is not composed of relative newcomers to technology. In stark contrast, the Titanium Core Team has over two-hundred (200) years of combined experience. This is also not the first technology company that Titanium's Founder and CEO, Michael Stollaire, has ever formed. In 1999, Mr. Stollaire founded EHI, a technology consultancy specializing in enterprise infrastructure management, which is still thriving and growing today with Michael at the helm.

Two decades of experience taught EHI's personnel the strengths of infrastructure-based enterprise management, but it also unveiled the weaknesses of several solutions and problems that had to be minimized at several past customers.

Taking these problems and weaknesses under consideration, The EHI Team formulated a new architectural design on an entirely new bleeding-edge platform, The Ethereum Blockchain, which mitigated all of these issues. It was called Titanium, because the objective was to make our clients' technology infrastructure stronger than steel.

Also, EHI and its consultants are known in the industry as top-tier, elite personnel, as shown by their impressive Client List and Testimonials.

Most Blockchain start-ups and ICOs face a very serious problem after they develop a viable product and or service: finding companies and people that could actually purchase them and use them.

Titanium could potentially not have this problem. As EHI's sister company, Titanium could simply inherit EHI's clientele, and since EHI is considered a trusted source of excellent customer service and personnel, Titanium could potentially also be held in high regard.

In the eyes and opinion of Mr. Stollaire, in fact, Titanium is an organic evolution of EHI, and should effectively be considered "EHI v2.0."

What follows is a short excerpt of some of EHI's customers, which Titanium could potentially leverage immediately.

CLIENTS INCLUDE



Figure 2: The EHI ↔ Titanium Connection

## THE TITANIUM TEAM

### TWO CENTURIES OF COMBINED EXPERIENCE

Titanium has many excellent assets and advantages, but nothing stands out more than The Titanium Core Team. Combined, The Titanium Core Team holds over two-hundred (200) years of combined experience in global infrastructure enterprise environments. Throughout seventeen years of experience in the technology sector, specializing in enterprise infrastructure management, Founder and CEO of Titanium, Michael Stollaire, made it a habit of identifying the most elite talent in technology, and made sure he kept in close contact with these individuals throughout the years. Over the course of time, Mr. Stollaire called in a favor or two to a handful on the list, to assist him with projects at Accenture, Boeing, Devon Energy, etc. However, with the advent of The Titanium Project, every resource that was accumulated over two decades was brought into the fold, forming an “A-Team” of the finest technology talent in the world.

<p><b>MICHAEL STOLLAIRE</b> President &amp; CEO</p>	<p><b>RICHARD SILVER</b> COO/Director of Marketing</p>	<p><b>CHRISTOPHER SNOOK</b> CTO</p>	<p><b>VINCENT FULLERTON</b> Technical Advisor (Pura Core Team &amp; NEM Developer)</p>
<p><b>STUART SIEGLER</b> Ethereum Developer and Enterprise Automation Expert</p>	<p><b>JAMES CONNOLLY</b> Ethereum Developer</p>	<p><b>JESSE URE</b> Ethereum Developer</p>	<p><b>RITCHEY MULHOLLEM</b> Ethereum Developer</p>



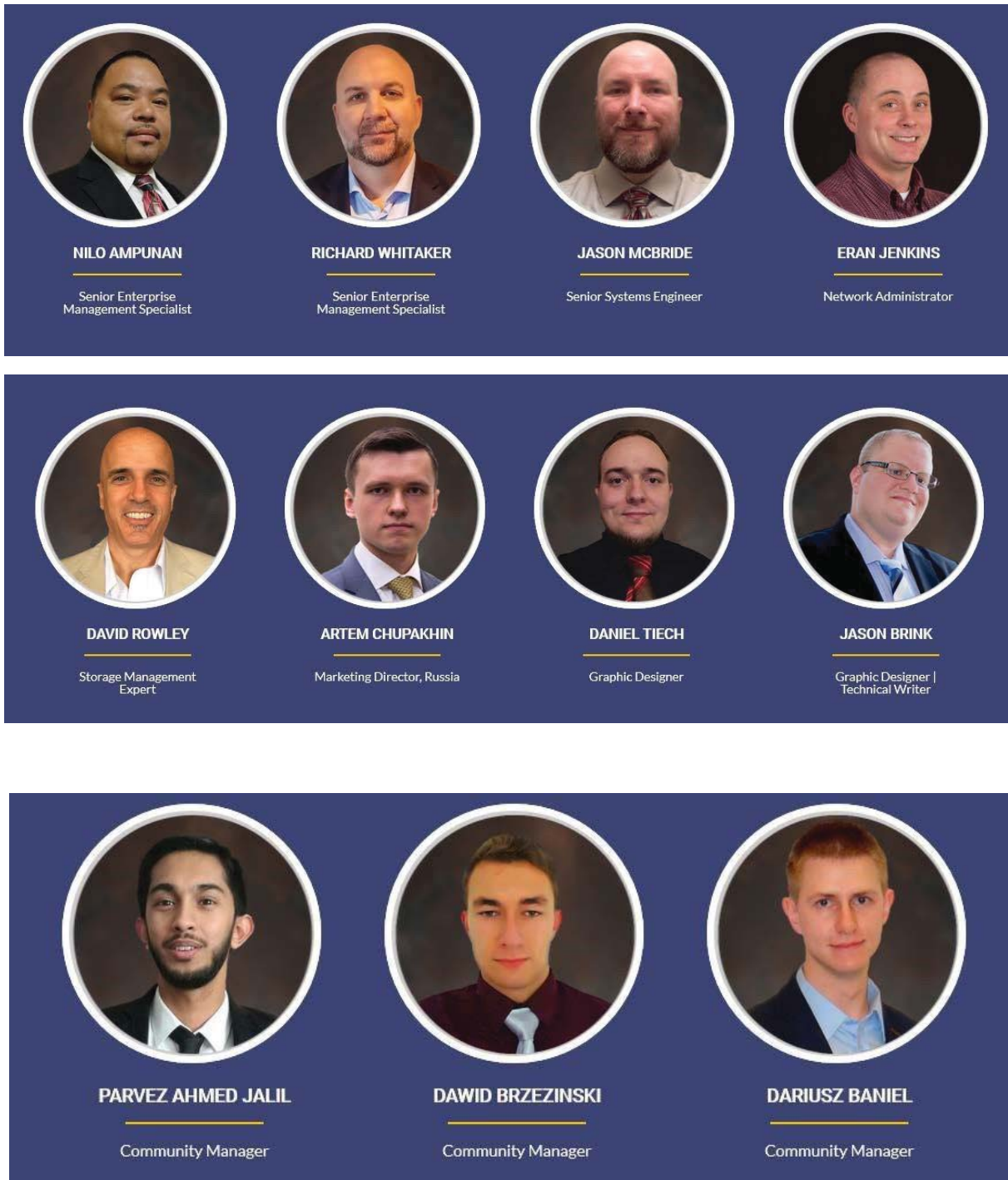


Figure 3: Team Titanium

## BACKGROUND

Since the advent of the idea of an interconnected network in the 1960s, very little has changed regarding internet infrastructure. While today's internet has infinitely more interconnected servers, home computers, and most importantly, users, the functional technological framework has not changed since it was first envisioned by the computing pioneers of the '60s and '70s. Of course, server technology has improved since the first network arrays such as ARPANET, but the fundamental infrastructure hasn't changed – it is still based on large data centers and is centrally controlled by large companies who have their own interests at heart; these interests are not necessarily yours.

In 1999, the invention of virtualization software allowed for the creation of virtual machines (VMs) on high capacity servers. This saved companies around the world billions of dollars and allowed for the rapid growth of the consumer web hosting industry as hundreds of low traffic websites could be hosted in a very small amount of rack space as “servers” could be brought into being with the touch of a button. However, even in this situation, a disproportionate amount of power was placed in the hands of relatively few companies. Even today, up to 70% of internet traffic passes through server farms concentrated in Northern Virginia and operated by a single company.<sup>1</sup> While the status quo *works*, it is far from the ideal decentralized and democratized internet envisioned by our technological progenitors and which is only now becoming a possibility.

Welcome to the new world brought to you by Titanium Infrastructure Services (TBIS); We Are the Revolution.

## A NEW ERA

Today, the largest transportation company in the world owns no cars (Uber), the largest hospitality company on the face of the planet owns no hotels (AirBnB), the largest retailer carries no stock (Alibaba), and the world's most popular media network creates no content (Facebook). Clearly, we are living in a time of radical change. Why should internet infrastructure be any different?

TBIS is proud to introduce decentralized/distributed Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) on the Ethereum blockchain platform. Today the internet, considered collectively, represents an estimated 11.5 million petabytes of data. As enormous as this it, it is dwarfed by the potential of a fully integrated and

---

<sup>1</sup> As of the time of writing, roughly 70% of all internet traffic passes through Amazon Web Services (AWS) server farms scattered throughout Northern Virginia. This centralization introduces a fundamental weakness to the entire infrastructure of the Internet; TBIS was designed to solve this problem.

Source: <https://www.washingtonian.com/2016/09/14/70-percent-worlds-web-traffic-flows-loudoun-county>

interconnected global network scattered throughout the billions of desktops, servers, and networked devices. It is the leveraging of this system to which TBIS is dedicated. With completed proof-of-concept models created and functioning infrastructure forged by the greatest minds in the distributed computing industry, TBIS could potentially completely revolutionize internet infrastructure.

Just as steel changed the building industry forever, Titanium could potentially usher in a new era of network construction. With TBIS' proprietary IaaS, every device, from enterprise level on down, can be virtualized; routers, firewalls, and specialized equipment such as cryptocurrency miners, can exist in an entirely cloud-based environment. With Titanium Hydra Fault Tolerance, if a device falters, TBIS could potentially have already shifted load away and onto another network of redundant nodes. If a potential security problem arises, the TBIS system could potentially work automatically to limit the potential impact of attacks such as DDOS or other address-specific attacks; it is impossible to overwhelm a piece of equipment that exists only on the ether.

The backbone of the TBIS system is the Service Level Agreement (SLA) which can be constructed to optimize uptime of all devices, applications, and mission-critical services. The Titanium Control Panel could potentially make it possible for even an inexperienced user to create SLAs that could potentially be able to support enterprise-level support and network infrastructure for any person or company that has decided to be a part of the coming Titanium Revolution.

**In short, TBIS IaaS could potentially render current infrastructure services, from web hosting to any network support device, archaic, obsolete and utterly useless. Just as iron supplanted bronze, Titanium is elemental to the future of the internet.**

## MISSION STATEMENT

*"Our mission is to leverage the power of the immutable blockchain to provide virtual infrastructure services for businesses and individuals, creating a Titanium clad guarantee of reliability which had previously been wholly impossible."*

Our team firmly believes in the disruptive power of the blockchain. Already, global business and finance are being transformed and disrupted by blockchain technologies. TBIS has already completed trials that demonstrate that it is possible to create entire infrastructure systems on distributed and redundant systems. Imagine a world in which businesses no longer need to have a networking closet full of expensive and temperamental equipment that rapidly becomes obsolete, requires tender care and reduces productivity through downtime or general digital surliness. All of the decaying equipment with yellowing casings can be replaced with digital titanium for a fraction of the cost of acquisition and maintenance of hardware

infrastructure, all while increasing uptime and reliability and completely eliminating maintenance.

TBIS's Infrastructure as a Service (IaaS) is a powerful and timely platform which is needed to usher in a new era of productivity for companies and individuals around the world by providing end-to-end internet infrastructure.

### CORE OBJECTIVES, PRODUCTS AND SERVICES

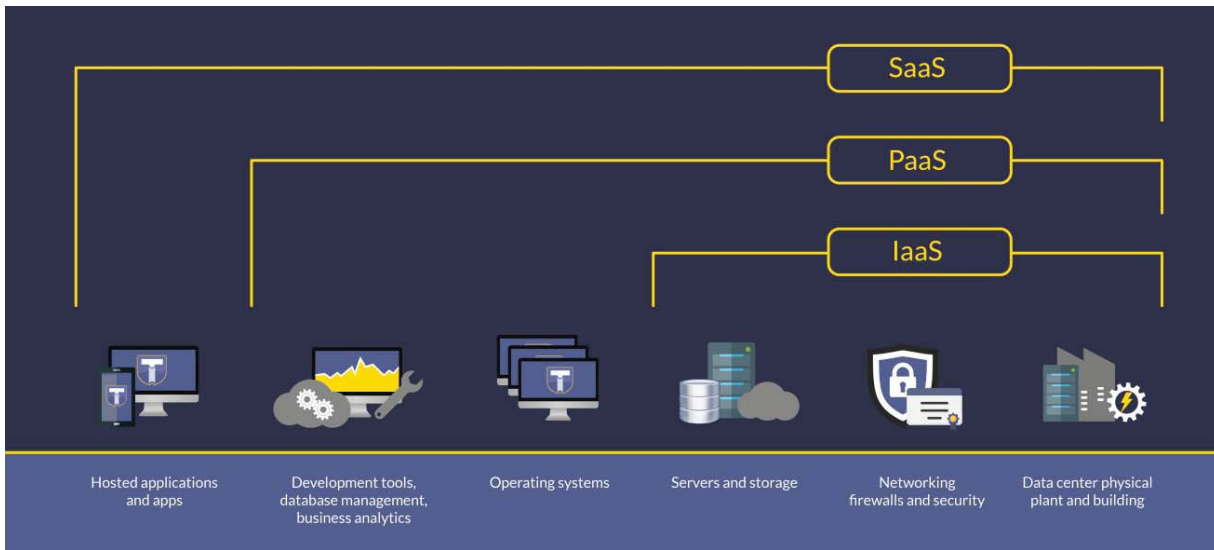


Figure 4: Decentralizing the Entire Technology Infrastructure

Titanium Infrastructure Services (TBIS) has the following core components:

#### Infrastructure as a Service (IaaS)

The core competency objective and primary goal of TBIS is the creation and propagation of a shockproof distributed network infrastructure capable of replacing the bloated and inefficient hardware foundation upon which the internet of today is based. *In essence: to build a better internet that cannot be controlled or destroyed by anyone and is open for all.*

**This could potentially include but is not limited to:**

- a) Maintaining and Enhancing TBIS' existing enterprise virtualization software package which enables the creation of network components such as servers, routers, switches, etc., in a distributed environment

- b) Building and remaining as the *de facto* platform for creating, maintaining, patching and upgrading distributed enterprise IT environments
- c) Making it quick and simple to virtualize entire enterprise-level infrastructure environments while simultaneously decreasing the cost-to-consumer and downtime while increasing network reliability, security, and convenience
- d) Website hosting through the Titanium Virtual Server System could potentially be more reliable than existing shared hosting because unlike a traditional server, which can go down, the TBIS servers could potentially guarantee constant uptime and dramatically increased security
- e) Implement the cutting-edge TBIS Enterprise Management Software with autonomous healing and security functions include in the Titanium Hydra Fault Tolerance Suite for all monitored elements and network components

### Repurposing Legacy Hardware

First and foremost, we must point out that only enterprise-class resources could potentially become part of the Titanium infrastructure. This can and should include legacy equipment such as older versions of servers, storage arrays, etc.

#### *Legacy Mining Equipment*

A significant advantage of IaaS and the decentralized resources that it could potentially be composed of, is that it could potentially allow for repurposing of legacy hardware, including older versions of cryptocurrency mining equipment. Instead of them essentially being "expensive paperweights," we will potentially make them part of the Titanium infrastructure.

## The Bar's (BAR) Role Within the Titanium Ecosystem

*The Titanium BAR is a utility token and is the only currency that can be used within The Titanium Ecosystem, to pay for products and services.*

The Titanium Bar (BAR) Token is a core component of Titanium and is designed to ensure flexibility and control over the future evolution of the project. BAR is created during the crowdfunding period (described in this whitepaper) and, following the first major release of Titanium, BAR could potentially be attributed a variety of functions in the Titanium network.

*The supply of BAR is limited to the pool of tokens created during crowdfunding period.*

## TOKEN MECHANICS AND SALE DETAILS

This Token Mechanics and Sale Details summary does not constitute an offer to sell or a solicitation of an offer to buy TBIS's token, called "BAR", and is provided for informational purposes only in respect of TBIS's platform. The following summary reflects TBIS's current expectations with respect to token mechanics and sale of BAR, which are subject to change.

The Titanium BAR is a utility token and is the only form of currency that can be used to purchase products and services in The Titanium Ecosystem.

The Titanium BAR is not a security.

Soon, the TBIS token (BAR) could potentially be sold. As part of this sale, a fixed pool of BAR could potentially be generated. No further BARs could potentially be created in the future. BAR could potentially be a deflationary currency. Once the sale concludes, a portion of BAR tokens could potentially be allocated and given to the TBIS team as an incentive for the success of our platform, and a separate portion could potentially be held as a reserve pool and expenditure fund. The community could potentially hold 60% of all BAR, the TBIS team could potentially hold 20% of BAR (subject to a freeze period), 10% of BAR could potentially be reserved for various community bounties and 10% of BAR could potentially be allocated for the reserve pool.

### Titanium BAR Token Sale

BAR tokens will be offered at an exchange rate of 1 BAR for the equivalent of \$1 USD in currency, for a sale duration of approximately sixty (60) days. During the first 72 hours, all BAR purchased could potentially be sold at a reduced rate. The sale is slated to begin on January 1, 2018, at 1 PM (GMT-7) and will end on March 1, 2018, at 11:59 PM (GMT-7).

The TBIS team has pre-determined a minimum goal (denoted in US Dollars) that represents the runway necessary for the core TBIS platform to be finished and released. If the minimum goal is not reached by the end of the sale duration, then all contributed Ether could potentially be marked for a refund. Anybody who contributed could potentially be able to withdraw their Ether from the sale contract. The soft cap figure is \$1,000,000. The hard cap figure is \$35,000,000.

### Titanium BAR Pre-Sale and "Early Bird" Bonus Periods

Before the January 1, 2018 BAR token sale, a pre-sale period of approximately one month will transpire. During that time, investors that are willing to purchase a minimum

of \$5,000 in the project will receive a 20% bonus. This would equate roughly to 1.2 BAR for \$1 USD.

Three (3) bonus periods will be offered at the beginning of the sale to provide early bird contributors a small incentive. During the first 24 hours of the funding period, the exchange rate will be 1.15 BAR for \$1 USD, a 15% bonus. For the 48 hours after that, the exchange rate will be 1.1 BAR for \$1 USD, a 10% bonus. For the 48 hours after that, the exchange rate will be 1.05 BAR for \$1 USD, a 5% bonus. After the early bird periods, the price of BAR will remain at 1 BAR for \$1 USD for the rest of the sale.

*Note: The exact start date, duration of the discount period, and duration of the sale will be determined by block numbers, and thus are approximated with an accuracy of a couple of minutes.*

Half of the tokens (10% of the total token pool sold) retained by the TBIS team will be frozen for one year (12 months) from the end of the sale, with the other 10% remaining frozen for an additional year (a total of 24 months). This freeze period ensures that no developer tokens could potentially enter circulation before the TBIS platform is live.

Any tokens purchased as part of the sale will be immediately allocated to the buyer, but could potentially be locked from transfers until the minimum goal has been reached. In a short amount of time after the sale starts, these tokens could potentially be spendable in the TBIS mainnet demo app, once the minimum cap is reached.

### Unsold BAR Tokens

Titanium BAR tokens are created as they are sold. The team and bounty, etc. allocation gets created at the same time. Once the sale is over we could potentially terminate the crowdsale contract, which could potentially prevent new tokens from being minted. Therefore, BAR tokens could potentially not be "burned."

### Referral Bonus

During the pre-sale and general ICO crowdfunding periods, a referral bonus of 5% could potentially be paid to existing Titanium BAR Token owners, if they refer other individuals to the Titanium BAR Token sale that proceed to purchase the minimum amount of Titanium BAR Tokens, equivalent to 0.01 ETH or greater.



## OPERATIONS AND ROADMAP

TBIS features could potentially be released in the following order:

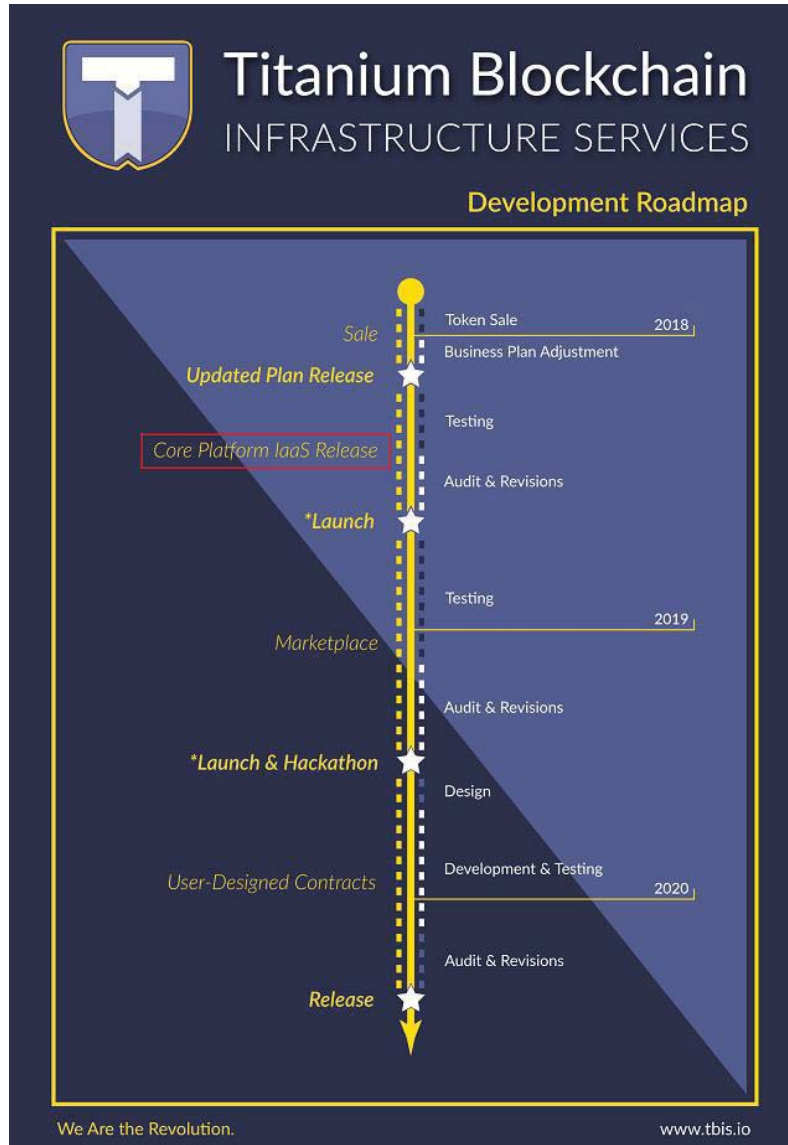


Figure 1: The feature release schedule for the TBIS platform.

## KEY ACTIVITIES

### Platform Development, Testing, and Maintenance

Further development and continued maintenance of the core TBIS platform is the primary cost that TBIS could potentially expense in the near future. This allocation of resources could potentially be put towards the compensation of the core TBIS team, and any future personnel who are signed onto the TBIS team, as necessary. This could potentially primarily consist of Software Engineers, Platform and Infrastructure Engineers, Customer Service and Support Specialists, and Product Strategists.

### Auditing

To minimize risks to TBIS users, we have reached out to multiple trusted security and software verification firms which specialize in smart contract auditing. These auditors could potentially be responsible for verifying our smart contracts before deployment, in addition to the rigorous set of internal testing performed by the TBIS team. Given the sensitive nature of TBIS's platform, we believe that it is better to err on the side of caution and could potentially devote all of the necessary resources to ensuring a safe and secure platform for all TBIS users.

### Business Growth and Development

We could potentially be marketing our platform to ensure healthy growth. This is not only important for ensuring that TBIS remains the best platform for deploying smart contracts, but also for marketplace participants, as their ability to earn BAR could potentially depend entirely on the size of the user base. We intend to acquire new users via targeted marketing, first focusing on targeting early adopters and businesses already building on blockchain technology. We could potentially quickly extend our efforts towards additional channels to bring new users to both the TBIS platform and Ethereum in general. We intend to appeal both personal uses as well as businesses. That said, we view business growth in a holistic manner. We believe in demonstrating value first, as well as attracting attention through collaboration. As noted in our roadmap, we intend to organize at least one hackathon to jump-start the contract marketplace. For this event, we intend to create voter tokens and to have participants choose winners. These winners could potentially receive free auditing and early availability of their developed smart contracts on the marketplace. We could potentially also form partnerships with other blockchain innovators to create mutual value for our users. We could potentially focus our business development efforts on those technologies with identifiable synergies and compatibilities with TBIS. We put

open and honest relationships first, and seek to mutually encourage innovation and growth.

## Legal

Our platform could potentially require users have a clear understanding of the rights and responsibilities of all parties involved in using TBIS. Once our token sale has concluded, we could potentially invest the necessary time and capital in developing user agreements for smart contract deployment and marketplace sellers. Future legal costs are also accounted for here.

## Future Goals

Bugs and unforeseen flaws are an inevitable risk with any programming code, regardless of how thoroughly they have been vetted and reviewed. TBIS could potentially strive to provide its users with the maximum amount of assurance possible by implementing enhanced security measures in any contract where appropriate. The ability to stop a rogue contract in a structured, pre-determined way could potentially prevent high-value losses and ensure a safe platform for everyone, without resorting to or relying on controversial hard-forks. We also recognize that the technology landscape is quickly evolving, and that our platform infrastructure must remain agile and adapt to changing conditions. As new technology and solutions such as decentralized hosting and storage stabilize and gain adoption, we intend to move more and more of the TBIS platform to these services. This could potentially ensure that our platform remains the preferred solution for smart contract deployment.

## LEGAL CONSIDERATIONS

The most current version of this document, accessible on the web at:

<https://tbis.io/TBIS-white-paper-v2-7/>

The version available at that URL represents the only valid version of our whitepaper.

BAR are only functional tokens intended to be used to compensate TBIS for use of its platform. These tokens could potentially give access to the TBIS mainnet demo app as soon as the minimum cap is achieved. BAR are not for speculative investment. No promises regarding value or future performance are made regarding BAR. No promises regarding any particular value of BAR are made. No other rights associated with holding BAR are given. Proceeds of the token sale may be spent as the company sees appropriate, which may change as deemed necessary in the maturation and advancement of TBIS.

Our team is investing heavily in the safety and security of the services TBIS provides, as detailed previously. However, we cannot protect against all possible sources of error, especially those in parts of the technology stack we cannot control. Therefore, all risks assumed by using the TBIS platform in any capacity, including but not limited to deploying smart contracts, creating and destroying virtual devices, and collecting BAR through the marketplace are solely assumed by the user. Users must measure the gravity of potential value loss against their trust in the services TBIS could potentially provide and act as they see appropriate. Never trust anything that one cannot afford to lose to any entity, TBIS or otherwise, without fully understanding all of the mechanics involved in the whole procedure. BAR tokens are meant to be held and used by those well-versed in cryptographic tokens, only for the purpose of accessing the services offered on the TBIS platform.

TBIS and its team must abide within the laws set forth in its operational country(ies).

We intend to provide our services in as decentralized a fashion as reasonably feasible, but our legal entity must act according to the rules and bounds encoded in applicable laws. This includes but is not necessarily limited to laws governing financial operations, employment, fee charging, and sales.

## APPENDIX A: Example Solidity Escrow Contract

```

contract decentralisedAuction{
struct auction {
    uint deadline;
uint highestBid;          address
highestBidder;          uint bidHash;
    address recipient;
    }
    mapping(uint => auction) Auctions; uint
numAuctions;

    function startAuction(uint timeLimit) returns (uint auctionID){
auctionID = numAuctions++;
    Auctions[auctionID].deadline = block.number + timeLimit;
Auctions[auctionID].recipient = msg.sender;
    }
    function bid(uint id, uint biddersHash) returns (address highestBidder){
auction a = Auctions[id];
        if (a.highestBid + 1*10^18 > msg.value || a.deadline > block.number)
{
            msg.sender.send(msg.value);
return a.highestBidder;
        }
        a.highestBidder.send(a.highestBid);
a.highestBidder = msg.sender;
a.highestBid = msg.value;
a.bidHash = biddersHash;
return msg.sender;
    }
    function endAuction(uint id, uint key) returns (address highestBidder){
    auction a = Auctions[id];
    if (block.number >= a.deadline && sha3(key) == a.bidHash) {
a.recipient.send(a.highestBid);
        clean(id)
    }
    }
    function clean(uint id) private{
    auction a = Auctions[id];
a.highestBid = 0;
        a.highestBidder =0;
a.deadline = 0;
a.recipient = 0;
a.bidHash = 0;
    }
}

```

## **EXHIBIT 16**

# Titanium Blockchain

INFRASTRUCTURE SERVICES



TBIS

## WHITE PAPER

Last Revision: September 22, 2017. © 2017 TBIS Inc. All rights reserved.  
v2.7 January 16, 2018

TBIS



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## DOCUMENT REVISION HISTORY

Version	Modifications Made	Author(s)
v1.0	Initial Draft	Michael Stollaire/Jason Brink
v1.1	DEXchange Added to Titanium's List of Products and Services	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.2	Titanium BAR Token distribution percentages modified to leave more to reserve, Referral Bonus program added, Titanium Storage added as a potential strategic partner, ZCash added as an approved currency to purchase BAR with, Pre-Sale period extended, due to the rapid increase in Bitcoin's (BTC) price causing a subsequent dramatic decrease in Ethereum's (ETH) value and the minimum amount of BTC/ETH raised to consider the ICO a "success" decreased, because of BTC's rapid price increase (doubled in price since release of v1.0 of this White Paper). Also, added a new section: "The EHI Advantage."	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.3	Increased the bonus for using the BAR within The Titanium Ecosystem to 10% from 5%. Also added verbiage to "The EHI Advantage" Section of the White Paper. Added verbiage about a defined soft cap of money that the project must raise for the project to be viable.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.4	Added Table of Contents	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.5	Moved Content, Added New Citations, Client Logos, etc.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.6	Changed security cap to 350,000 ETH.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.7	Added a figure of \$35,000,000 for a hard cap.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)



v1.8	Added emphasis on Titanium being the first blockchain start-up ever, to obtain D&B and BBB accreditation.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v1.9	Replaced old roadmap Figure 1 image with new roadmap image.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.0	Based on audit results, added more corporate information, such as Federal Tax ID, California Corporation ID, etc. Also, added more Titanium Core Team information as well.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.1	Corrected DEXchange information, regarding the number of cryptocurrencies listed, the number of fiat currency pairs supported, and the guarantee that DEXchange could potentially charge the lowest transaction fees in the world, guaranteed.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.2	Added Five-Year Financial Projections for the Titanium Project.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.3	Re-Corrected an Incorrect Statement about the BAR Token, as it could potentially be the only currency that can be used in the Titanium Ecosystem.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.4	Added verbiage for Platform as a Service (PaaS), as an augmentation and synergistic element of IaaS.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)



v2.5	Added additional verbiage, regarding PaaS, more information about what cloud-based issues that Titanium would solve, greater detail as to how Titanium's deployment on blockchain functions and solves current problems, removed a subsection of EHI-based verbiage, pegging BAR to the USD vs ETH, Added "Why Titanium?" section, added verbiage about what happens in the case all BARs are not sold, the incentive for providing decentralized hardware, etc.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.6	Added Graphics for Payment Incentives for High-End Hardware in the Titanium IaaS/PaaS infrastructure and an overview graphic of IaaS/PaaS itself. Also, added graphics as to how decentralized resources, e.g., processor, memory and storage are delivered to the Titanium Infrastructure.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)
v2.7	Various wording changes, format changes, content moved/updated, etc.	Michael Stollaire/Artem Chupkhin (Legal)/Vincent Fullerton (Technical Advisor)

## WHY TITANIUM?

- Titanium is first-to-market, regarding providing Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) on blockchain, our core competencies.
- Decentralized resources could potentially allow Titanium to charge at least 50% less than our competitors.
- Because of its decentralized nature, Titanium could potentially be able to promise customers uptimes of 99.99% for all services, applications, devices, etc.
- Cloud-based IaaS and PaaS are centralized, and therefore prone to [outages](#), performance degradation, and typical hacker attacks, such as Distributed Denial of Service (DDoS).
- Titanium is the sister company of EHI, the first technology company that our Founder and CEO started, which has been in business close to two decades and can give a warm handoff of Fortune 500, Education and Government clients to Titanium.
- The Titanium Core Team has over two-hundred (200) years of experience, and are considered to be in the top 1% of their respective technology fields.
- Titanium is the very first blockchain start-up to achieve both Dun and Bradstreet (D&B) and Better Business Bureau (BBB) accreditation.



Figure 1: Titanium ~ Setting a New Precedent in Blockchain Technology

## EXECUTIVE SUMMARY

### Titanium Infrastructure Services: The Ultimate Strength of the Blockchain... Unleash

- Titanium Blockchain Infrastructure Services (TBIS) finally answers the question: “What if an entire IT enterprise could be decentralized, including data centers, firewalls, load-balancers, routers, switches, network appliances and servers?”
- TBIS intends to disrupt the current market leaders in the provisioning and virtualization space.
- Our core product, Infrastructure as a Service (IaaS) will potentially be released as a Minimum Viable Product during Q1 2018, before March 1<sup>st</sup>.
- TBIS is developed on the blockchain platform, so all changes in the environment and assets could potentially be recorded on an immutable ledger, to correlate with standard IT change management and ITIL methodologies.
- Follow-the-Sun enterprise management and monitoring services, autonomous healing, and optimized disaster recovery and redundancy mechanisms could potentially allow TBIS to potentially provide a significantly higher percentage of uptime of devices, applications and services, making them a market leader.
- Since TBIS would operate on the blockchain, the days of Distributed Denial of Service (DDoS) attacks and other black hat hacker exploits would effectively be over.
- Most, if not all, of the issues associated with similar cloud server products would be solved.
- The TBIS Administrative User Interface (UI) is intuitive and the simplest to use in the industry, and could potentially be available as a thick client, web-based thin client, and mobility applications on both Apple’s iOS and Android platforms.
- UI wizards could potentially allow administrators to create any component of their infrastructure in mere minutes, designed in alignment with their growth factors, technical requirements and business drivers.
- Mean Time to Repair (MTTR) is projected to be significantly hastened, minimizing the cost of outages.
- Cost of ownership (COO) could potentially be reduced to minimal levels.
- Return on Investment (ROI) for clients that migrate to the Titanium IaaS platform, could potentially be achieved far faster than with traditional cloud-based solutions.

TITANIUM: The first blockchain start-up ever to acquire both Better Business Bureau (BBB) and Dun and Bradstreet (D&B) Accreditation



D&B Number: [080926636](#)

Better Business Bureau (BBB) - Business ID: [756765](#)

Federal Tax ID: 82-3126792

California Corporation Number: 4073241

## TITANIUM: The EHI Advantage

What does EHI stand for? Excellence, Honesty and Integrity, because that is what we stand for.

Unlike 99.99% of Blockchain start-ups and Initial Coin Offerings (ICOs), the Titanium Core Team is not composed of relative newcomers to technology. In stark contrast, the Titanium Core Team has over two-hundred (200) years of combined experience. This is also not the first technology company that Titanium's Founder and CEO, Michael Stollaire, has ever formed. In 1999, Mr. Stollaire founded EHI, a technology consultancy specializing in enterprise infrastructure management, which is still thriving and growing today with Michael at the helm.

Two decades of experience taught EHI's personnel the strengths of infrastructure-based enterprise management, but it also unveiled the weaknesses of several solutions and problems that had to be minimized at several past customers.

Taking these problems and weaknesses under consideration, The EHI Team formulated a new architectural design on an entirely new bleeding-edge platform, The Ethereum Blockchain, which mitigated all of these issues. It was called Titanium, because the objective was to make our clients' technology infrastructure stronger than steel.

Also, EHI and its consultants are known in the industry as top-tier, elite personnel, as shown by their impressive Client List and Testimonials.

Most Blockchain start-ups and ICOs face a very serious problem after they develop a viable product and or service: finding companies and people that could actually purchase them and use them.

Titanium could potentially not have this problem. As EHI's sister company, Titanium could simply inherit EHI's clientele, and since EHI is considered a trusted source of excellent customer service and personnel, Titanium could potentially also be held in high regard.

In the eyes and opinion of Mr. Stollaire, in fact, Titanium is an organic evolution of EHI, and should effectively be considered "EHI v2.0."

What follows is a short excerpt of some of EHI's customers, which Titanium could potentially leverage immediately.

## THE TITANIUM TEAM

### TWO CENTURIES OF COMBINED EXPERIENCE

Titanium has many excellent assets and advantages, but nothing stands out more than The Titanium Core Team. Combined, The Titanium Core Team holds over two-hundred (200) years of combined experience in global infrastructure enterprise environments. Throughout seventeen years of experience in the technology sector, specializing in enterprise infrastructure management, Founder and CEO of Titanium, Michael Stollaire, made it a habit of identifying the most elite talent in technology, and made sure he kept in close contact with these individuals throughout the years. Over the course of time, Mr. Stollaire called in a favor or two to a handful on the list, to assist him with projects at Accenture, Boeing, Devon Energy, etc. However, with the advent of The Titanium Project, every resource that was accumulated over two decades was brought into the fold, forming an “A-Team” of the finest technology talent in the world.







Figure 3: Team Titanium

## BACKGROUND

Since the advent of the idea of an interconnected network in the 1960s, very little has changed regarding internet infrastructure. While today's internet has infinitely more interconnected servers, home computers, and most importantly, users, the functional technological framework has not changed since it was first envisioned by the computing pioneers of the '60s and '70s. Of course, server technology has improved since the first network arrays such as ARPANET, but the fundamental infrastructure hasn't changed – it is still based on large data centers and is centrally controlled by large companies who have their own interests at heart; these interests are not necessarily yours.

In 1999, the invention of virtualization software allowed for the creation of virtual machines (VMs) on high capacity servers. This saved companies around the world billions of dollars and allowed for the rapid growth of the consumer web hosting industry as hundreds of low traffic websites could be hosted in a very small amount of rack space as “servers” could be brought into being with the touch of a button. However, even in this situation, a disproportionate amount of power was placed in the hands of relatively few companies. Even today, up to 70% of internet traffic passes through server farms concentrated in Northern Virginia and operated by a single company. <sup>1</sup> While the status quo works, it is far from the ideal decentralized and democratized internet envisioned by our technological progenitors and which is only now becoming a possibility.

Welcome to the new world brought to you by Titanium Infrastructure Services (TBIS); We Are the Revolution.

## A NEW ERA

Today, the largest transportation company in the world owns no cars (Uber), the largest hospitality company on the face of the planet owns no hotels (AirBnB), the largest retailer carries no stock (Alibaba), and the world's most popular media network creates no content (Facebook). Clearly, we are living in a time of radical change. Why should internet infrastructure be any different?

TBIS is proud to introduce decentralized/distributed Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) on the Ethereum blockchain platform. Today the internet, considered collectively, represents an estimated 11.5 million petabytes of data. As enormous as this it, it is dwarfed by the potential of a fully integrated and

---

<sup>1</sup> As of the time of writing, roughly 70% of all Internet traffic passes through Amazon Web Services (AWS) server farms scattered throughout Northern Virginia. This centralization introduces a fundamental weakness to the entire infrastructure of the Internet; TBIS was designed to solve this problem.

Source: <https://www.washingtonian.com/2016/09/14/70-percent-worlds-web-traffic-fows-loudoun-county>

interconnected global network scattered throughout the billions of desktops, servers, and networked devices. It is the leveraging of this system to which TBIS is dedicated. With completed proof-of-concept models created and functioning infrastructure forged by the greatest minds in the distributed computing industry, TBIS could potentially completely revolutionize internet infrastructure.

Just as steel changed the building industry forever, Titanium could potentially usher in a new era of network construction. With TBIS' proprietary IaaS, every device, from enterprise level on down, can be virtualized; routers, firewalls, and specialized equipment such as cryptocurrency miners, can exist in an entirely cloud-based environment. With Titanium Hydra Fault Tolerance, if a device falters, TBIS could potentially have already shifted load away and onto another network of redundant nodes. If a potential security problem arises, the TBIS system could potentially work automatically to limit the potential impact of attacks such as DDOS or other address-specific attacks; it is impossible to overwhelm a piece of equipment that exists only on the ether.

The backbone of the TBIS system is the Service Level Agreement (SLA) which can be constructed to optimize uptime of all devices, applications, and mission-critical services. The Titanium Control Panel could potentially make it possible for even an inexperienced user to create SLAs that could potentially be able to support enterprise-level support and network infrastructure for any person or company that has decided to be a part of the coming Titanium Revolution.

**In short, TBIS IaaS could potentially render current infrastructure services, from web hosting to any network support device, archaic, obsolete and utterly useless. Just as iron supplanted bronze, Titanium is elemental to the future of the internet.**

## MISSION STATEMENT

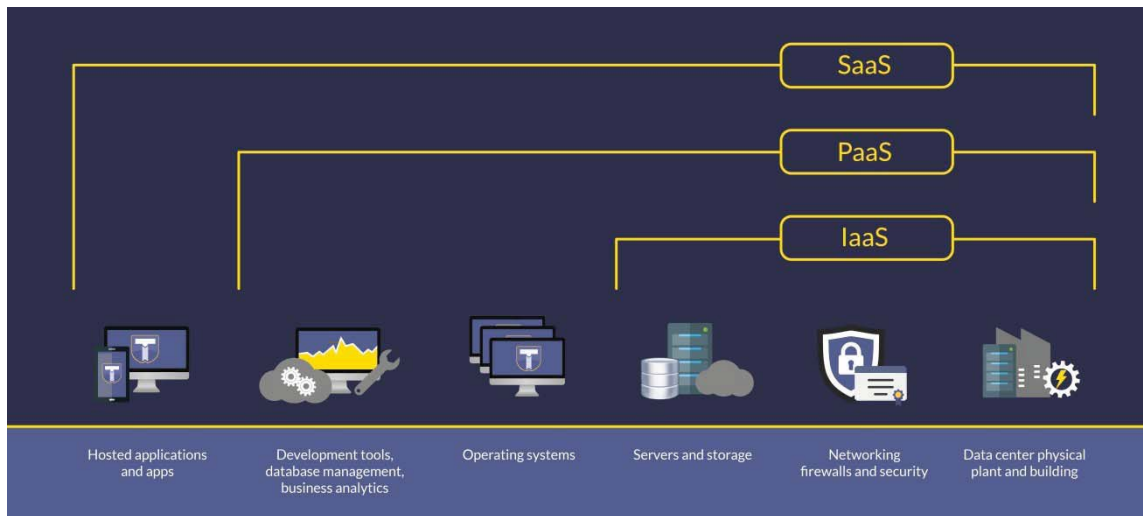
"Our mission is to leverage the power of the immutable blockchain to provide virtual infrastructure services for businesses and individuals, creating a Titanium clad guarantee of reliability which had previously been wholly impossible."

Our team firmly believes in the disruptive power of the blockchain. Already, global business and finance are being transformed and disrupted by blockchain technologies. TBIS has already completed trials that demonstrate that it is possible to create entire infrastructure systems on distributed and redundant systems. Imagine a world in which businesses no longer need to have a networking closet full of expensive and temperamental equipment that rapidly becomes obsolete, requires tender care and reduces productivity through downtime or general digital surliness. All of the decaying equipment with yellowing casings can be replaced with digital titanium for a fraction of the cost of acquisition and maintenance of hardware

infrastructure, all while increasing uptime and reliability and completely eliminating maintenance.

TBIS's Infrastructure as a Service (IaaS) is a powerful and timely platform which is needed to usher in a new era of productivity for companies and individuals around the world by providing end-to-end internet infrastructure.

## CORE OBJECTIVES, PRODUCTS AND SERVICES



**Figure 4: Decentralizing the Entire Technology Infrastructure**

**Titanium Infrastructure Services (TBIS) has the following core components:**

### Infrastructure as a Service (IaaS)

The core competency objective and primary goal of TBIS is the creation and propagation of a shockproof distributed network infrastructure capable of replacing the bloated and inefficient hardware foundation upon which the internet of today is based. In essence: to build a better internet that cannot be controlled or destroyed by anyone and is open for all.

**This could potentially include but is not limited to:**

- a) Maintaining and Enhancing TBIS' existing enterprise virtualization software package which enables the creation of network components such as servers, routers, switches, etc., in a distributed environment

- b) Building and remaining as the de facto platform for creating, maintaining, patching and upgrading distributed enterprise IT environments
- c) Making it quick and simple to virtualize entire enterprise-level infrastructure environments while simultaneously decreasing the cost-to-consumer and downtime while increasing network reliability, security, and convenience
- d) Website hosting through the Titanium Virtual Server System could potentially be more reliable than existing shared hosting because unlike a traditional server, which can go down, the TBIS servers could potentially guarantee constant uptime and dramatically increased security
- e) Implement the cutting-edge TBIS Enterprise Management Software with autonomous healing and security functions include in the Titanium Hydra Fault Tolerance Suite for all monitored elements and network components

## Repurposing Legacy Hardware

First and foremost, we must point out that only enterprise-class resources could potentially become part of the Titanium infrastructure. This can and should include legacy equipment such as older versions of servers, storage arrays, etc.

### Legacy Mining Equipment

A significant advantage of IaaS and the decentralized resources that it could potentially be composed of, is that it could potentially allow for repurposing of legacy hardware, including older versions of cryptocurrency mining equipment. Instead of them essentially being “expensive paperweights,” we will potentially make them part of the Titanium infrastructure.

## The Bar's (BAR) Role Within the Titanium Ecosystem

The Titanium BAR is a utility token and is the only currency that can be used within The Titanium Ecosystem, to pay for products and services.

The Titanium Bar (BAR) Token is a core component of Titanium and is designed to ensure flexibility and control over the future evolution of the project. BAR is created during the crowdfunding period (described in this whitepaper) and, following the first major release of Titanium, BAR could potentially be attributed a variety of functions in the Titanium network.

The supply of BAR is limited to the pool of tokens created during crowdfunding period.

## TOKEN MECHANICS AND SALE DETAILS

This Token Mechanics and Sale Details summary does not constitute an offer to sell or a solicitation of an offer to buy TBIS's token, called "BAR", and is provided for informational purposes only in respect of TBIS's platform. The following summary reflects TBIS's current expectations with respect to token mechanics and sale of BAR, which are subject to change.

The Titanium BAR is a utility token and is the only form of currency that can be used to purchase products and services in The Titanium Ecosystem.

The Titanium BAR is not a security.

Soon, the TBIS token (BAR) could potentially be sold. As part of this sale, a fixed pool of BAR could potentially be generated. No further BARs could potentially be created in the future. BAR could potentially be a deflationary currency. Once the sale concludes, a portion of BAR tokens could potentially be allocated and given to the TBIS team as an incentive for the success of our platform, and a separate portion could potentially be held as a reserve pool and expenditure fund. The community could potentially hold 60% of all BAR, the TBIS team could potentially hold 20% of BAR (subject to a freeze period), 10% of BAR could potentially be reserved for various community bounties and 10% of BAR could potentially be allocated for the reserve pool.

### Titanium BAR Token Sale

BAR tokens will be offered at an exchange rate of 1 BAR for the equivalent of \$1 USD in currency, for a sale duration of approximately sixty (60) days. During the first 72 hours, all BAR purchased could potentially be sold at a reduced rate. The sale is slated to begin on January 1, 2018, at 1 PM (GMT-7) and will end on March 1, 2018, at 11:59 PM (GMT-7).

The TBIS team has pre-determined a minimum goal (denoted in US Dollars) that represents the runway necessary for the core TBIS platform to be finished and released. If the minimum goal is not reached by the end of the sale duration, then all contributed Ether could potentially be marked for a refund. Anybody who contributed could potentially be able to withdraw their Ether from the sale contract. The soft cap figure is \$1,000,000. The hard cap figure is \$35,000,000.

### Titanium BAR Pre-Sale and "Early Bird" Bonus Periods

Before the January 1, 2018 BAR token sale, a pre-sale period of approximately one month will transpire. During that time, investors that are willing to purchase a minimum

of \$5,000 in the project will receive a 20% bonus. This would equate roughly to 1.2 BAR for \$1 USD.

Three (3) bonus periods will be offered at the beginning of the sale to provide early bird contributors a small incentive. During the first 24 hours of the funding period, the exchange rate will be 1.15 BAR for \$1 USD, a 15% bonus. For the 48 hours after that, the exchange rate will be 1.1 BAR for \$1 USD, a 10% bonus. For the 48 hours after that, the exchange rate will be 1.05 BAR for \$1 USD, a 5% bonus. After the early bird periods, the price of BAR will remain at 1 BAR for \$1 USD for the rest of the sale.

Note: The exact start date, duration of the discount period, and duration of the sale will be determined by block numbers, and thus are approximated with an accuracy of a couple of minutes.

Half of the tokens (10% of the total token pool sold) retained by the TBIS team will be frozen for one year (12 months) from the end of the sale, with the other 10% remaining frozen for an additional year (a total of 24 months). This freeze period ensures that no developer tokens could potentially enter circulation before the TBIS platform is live.

Any tokens purchased as part of the sale will be immediately allocated to the buyer, but could potentially be locked from transfers until the minimum goal has been reached. In a short amount of time after the sale starts, these tokens could potentially be spendable in the TBIS mainnet demo app, once the minimum cap is reached.

### Unsold BAR Tokens

Titanium BAR tokens are created as they are sold. The team and bounty, etc. allocation gets created at the same time. Once the sale is over we could potentially terminate the crowdsale contract, which could potentially prevent new tokens from being minted. Therefore, BAR tokens could potentially not be "burned."

### Referral Bonus

During the pre-sale and general ICO crowdfunding periods, a referral bonus of 5% could potentially be paid to existing Titanium BAR Token owners, if they refer other individuals to the Titanium BAR Token sale that proceed to purchase the minimum amount of Titanium BAR Tokens, equivalent to 0.01 ETH or greater.



## OPERATIONS AND ROADMAP

TBIS features could potentially be released in the following order:

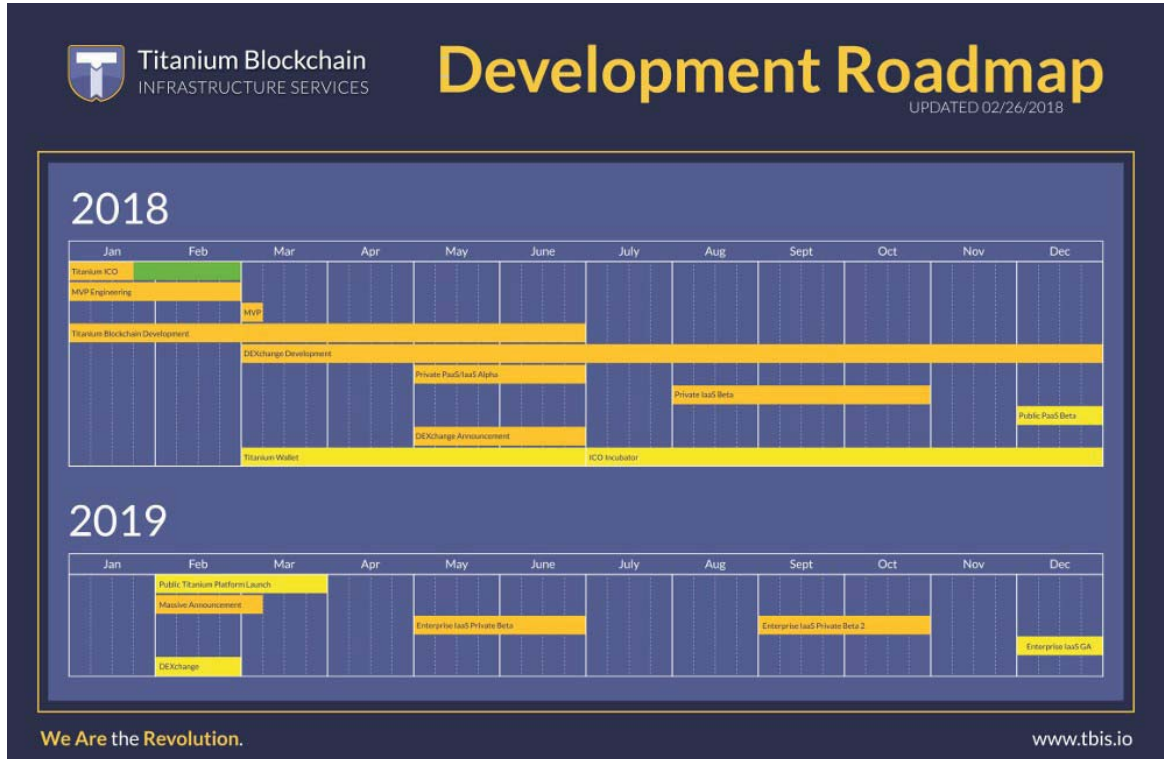


Figure 1: The feature release schedule for the TBIS platform.

## KEY ACTIVITIES

### Platform Development, Testng, and Maintenance

Further development and continued maintenance of the core TBIS platform is the primary cost that TBIS could potentially expense in the near future. This allocation of resources could potentially be put towards the compensation of the core TBIS team, and any future personnel who are signed onto the TBIS team, as necessary. This could potentially primarily consist of Software Engineers, Platform and Infrastructure Engineers, Customer Service and Support Specialists, and Product Strategists.

### Auditng

To minimize risks to TBIS users, we have reached out to multiple trusted security and software verification firms which specialize in smart contract auditing. These auditors could potentially be responsible for verifying our smart contracts before deployment, in addition to the rigorous set of internal testing performed by the TBIS team. Given the sensitive nature of TBIS's platform, we believe that it is better to err on the side of caution and could potentially devote all of the necessary resources to ensuring a safe and secure platform for all TBIS users.

### Business Growth and Development

We could potentially be marketing our platform to ensure healthy growth. This is not only important for ensuring that TBIS remains the best platform for deploying smart contracts, but also for marketplace participants, as their ability to earn BAR could potentially depend entirely on the size of the user base. We intend to acquire new users via targeted marketing, first focusing on targeting early adopters and businesses already building on blockchain technology. We could potentially quickly extend our efforts towards additional channels to bring new users to both the TBIS platform and Ethereum in general. We intend to appeal both personal uses as well as businesses. That said, we view business growth in a holistic manner. We believe in demonstrating value first, as well as attracting attention through collaboration. As noted in our roadmap, we intend to organize at least one hackathon to jump-start the contract marketplace. For this event, we intend to create voter tokens and to have participants choose winners. These winners could potentially receive free auditing and early availability of their developed smart contracts on the marketplace. We could potentially also form partnerships with other blockchain innovators to create mutual value for our users. We could potentially focus our business development efforts on those technologies with identifiable synergies and compatibilities with TBIS. We put

open and honest relationships first, and seek to mutually encourage innovation and growth.

## Legal

Our platform could potentially require users have a clear understanding of the rights and responsibilities of all parties involved in using TBIS. Once our token sale has concluded, we could potentially invest the necessary time and capital in developing user agreements for smart contract deployment and marketplace sellers. Future legal costs are also accounted for here.

## Future Goals

Bugs and unforeseen flaws are an inevitable risk with any programming code, regardless of how thoroughly they have been vetted and reviewed. TBIS could potentially strive to provide its users with the maximum amount of assurance possible by implementing enhanced security measures in any contract where appropriate. The ability to stop a rogue contract in a structured, pre-determined way could potentially prevent high-value losses and ensure a safe platform for everyone, without resorting to or relying on controversial hard-forks. We also recognize that the technology landscape is quickly evolving, and that our platform infrastructure must remain agile and adapt to changing conditions. As new technology and solutions such as decentralized hosting and storage stabilize and gain adoption, we intend to move more and more of the TBIS platform to these services. This could potentially ensure that our platform remains the preferred solution for smart contract deployment.

## LEGAL CONSIDERATIONS

The most current version of this document, accessible on the web at:

<https://tbis.io/TBIS-white-paper-v2-7/>

The version available at that URL represents the only valid version of our whitepaper.

BAR are only functional tokens intended to be used to compensate TBIS for use of its platform. These tokens could potentially give access to the TBIS mainnet demo app as soon as the minimum cap is achieved. BAR are not for speculative investment. No promises regarding value or future performance are made regarding BAR. No promises regarding any particular value of BAR are made. No other rights associated with holding BAR are given. Proceeds of the token sale may be spent as the company sees appropriate, which may change as deemed necessary in the maturation and advancement of TBIS.

Our team is investing heavily in the safety and security of the services TBIS provides, as detailed previously. However, we cannot protect against all possible sources of error, especially those in parts of the technology stack we cannot control. Therefore, all risks assumed by using the TBIS platform in any capacity, including but not limited to deploying smart contracts, creating and destroying virtual devices, and collecting BAR through the marketplace are solely assumed by the user. Users must measure the gravity of potential value loss against their trust in the services TBIS could potentially provide and act as they see appropriate. Never trust anything that one cannot afford to lose to any entity, TBIS or otherwise, without fully understanding all of the mechanics involved in the whole procedure. BAR tokens are meant to be held and used by those well-versed in cryptographic tokens, only for the purpose of accessing the services offered on the TBIS platform.

TBIS and its team must abide within the laws set forth in its operational country(ies).

We intend to provide our services in as decentralized a fashion as reasonably feasible, but our legal entity must act according to the rules and bounds encoded in applicable laws. This includes but is not necessarily limited to laws governing financial operations, employment, fee charging, and sales.

## APPENDIX A: Example Solidity Escrow Contract

```

contract decentralisedAuction{
    struct auction {
        uint deadline;
        uint highestBid;          address
    highestBidder;             uint bidHash;
        address recipient;
    }
    mapping(uint => auction) Auctions;  uint
    numAuctions;

    function startAuction(uint timeLimit) returns (uint auctionID){
        auctionID = numAuctions++;
        Auctions[auctionID].deadline = block.number + timeLimit;
        Auctions[auctionID].recipient = msg.sender;
    }
    function bid(uint id, uint biddersHash) returns (address highestBidder){
        auction a = Auctions[id];
        if (a.highestBid + 1*10^18 > msg.value || a.deadline > block.number)
    {
        msg.sender.send(msg.value);
        return a.highestBidder;
    }
        a.highestBidder.send(a.highestBid);
        a.highestBidder = msg.sender;
        a.highestBid = msg.value;
        a.bidHash = biddersHash;
        return msg.sender;
    }
    function endAuction(uint id, uint key) returns (address highestBidder){
        auction a = Auctions[id];
        if (block.number >= a.deadline && sha3(key) == a.bidHash) {
        a.recipient.send(a.highestBid);
        clean(id)
        }
    }
    function clean(uint id) private{
        auction a = Auctions[id];
        a.highestBid = 0;
        a.highestBidder =0;
        a.deadline = 0;
        a.recipient = 0;
        a.bidHash = 0;
    }
}

```

## **EXHIBIT 17**



# TITANIUM

BLOCKCHAIN INFRASTRUCTURE SERVICES



**WHITEPAPER**



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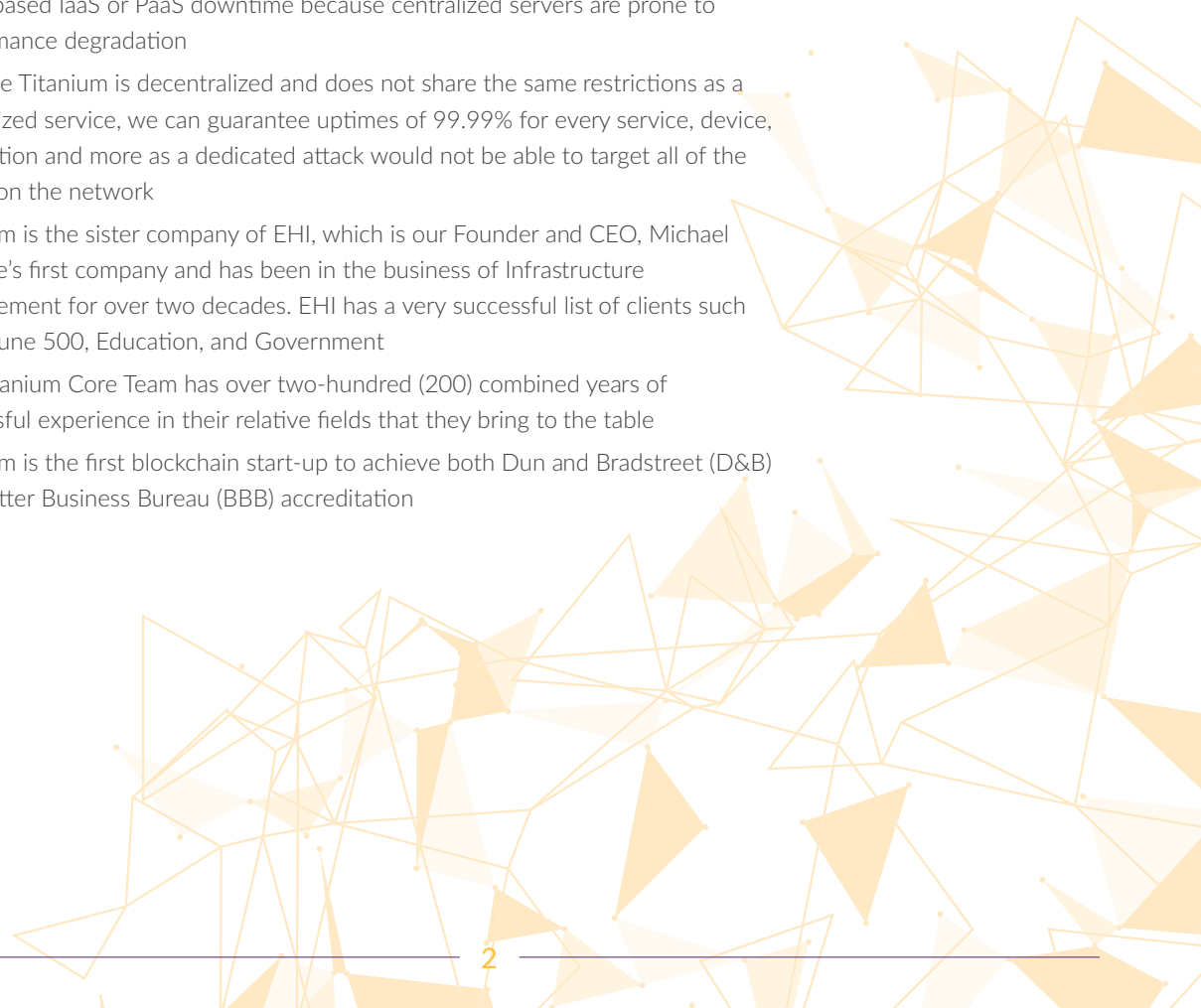
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# Titanium: Why Us?

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- Titanium Blockchain Infrastructure Services (TBIS) will make current Infrastructure Management obsolete by using its very own dedicated Ethereum Blockchain with off-chain technology to achieve speeds of up to 1 million transactions a minute
- By using off-chain technology within the ecosystem of TBIS, users can expect instantaneous no-fee transactions with added privacy as they will not be recorded on a public ledger
- Titanium uses the Ethereum Blockchain so that your device(s), service(s) or application(s) cannot be targeted by hacking techniques, or experience cloud-based IaaS or PaaS downtime because centralized servers are prone to performance degradation
- Because Titanium is decentralized and does not share the same restrictions as a centralized service, we can guarantee uptimes of 99.99% for every service, device, application and more as a dedicated attack would not be able to target all of the nodes on the network
- Titanium is the sister company of EHI, which is our Founder and CEO, Michael Stollaire's first company and has been in the business of Infrastructure Management for over two decades. EHI has a very successful list of clients such as Fortune 500, Education, and Government
- The Titanium Core Team has over two-hundred (200) combined years of successful experience in their relative fields that they bring to the table
- Titanium is the first blockchain start-up to achieve both Dun and Bradstreet (D&B) and Better Business Bureau (BBB) accreditation





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# Titanium: Accreditation

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Titanium is the first Blockchain ICO to ever receive D&B and BBB accreditation proving the team's dedication in achieving success and changing the Internet Infrastructure forever.

D&B Number: 080926636

<https://www.dnb.com/duns-number/lookup.html>

Better Business Bureau (BBB) - Business ID: 756765

<https://www.bbb.org/losangelessiliconvalley/business-reviews/information-technology-services/titanium-blockchain-infrastructure-services-in-sherman-oaks-ca-756765?language=1>

Federal Tax ID: 82-3126792

California Corporation Number: 4073241





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# Titanium: Background History

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Infrastructure Management has slowly been evolving since the first interconnected network was introduced in the 1960s, and while evolution is always good, very little has changed regarding Internet Infrastructure. Today's Internet is drastically larger due to the increased world use of computers, servers, devices and users, making centralized resources more expensive and at risk from increasingly larger threats every day. The Infrastructure in place today has not changed since the network array ARPANET was created in 1969, which causes a problem as it is still based on traditional data centers and centrally controlled by big corporations that oversee all the data flow. The current Internet Infrastructure has too many vulnerabilities such as hacking techniques, big corporations controlling the data and cost of hosting your own enterprise. Titanium will start a new era of Internet Management that benefits all parties.

The concept of virtualization was first introduced in the 1960s by IBM when they developed the CP-40 which played an integral part in creating the first virtual machine called IBM System/360 Model 67. In 1999 the creation of virtualized software like Virtual Machines (VMs) had been invented which allowed for VMs to be placed on high-capacity servers, saving companies around the globe billions of dollars as low traffic websites could be hosted in very small rack spaces. However, scenarios like this allow for the power of a business to be shifted into the wrong hands. As the Internet Infrastructure is set up today, we concede to the "cloud leaders" and give up necessities such as privacy and protection. Seventy percent of the internet's traffic flows through server farms located in North Virginia and operated by one company. Titanium Blockchain Infrastructure Services (TBIS) is your ideal solution for decentralization, privacy and protection.



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# Meet the Team Behind Titanium

TBIS has a team with proven success that you can rely on who are leading the revolution. The Titanium Core team has a combined two-hundred years of experience in global Infrastructure Enterprise Environments and are in the top one percent of their respective fields. Founder and CEO, Michael Stollaire has seventeen years of experience in the technology sector specializing in Enterprise Infrastructure Management, which made it easy for him to pick out the brightest minds in this space.

For more information on the TBIS team, please check out our LinkedIn group here:

<https://www.linkedin.com/company/18271882/>



**Michael Stollaire**  
Founder and CEO



**Richard Silver**  
Chief Operating Officer



**Daniel Bereczki**  
Chief Technology Officer



**Martha Breed**  
Chief Communications Officer



**Simon Studd**  
Chief Financial Officer



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# Titanium's Dedicated Blockchain

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Titanium's dedicated Blockchain intends to provide the most secure and reliable solution to a decentralized Internet Infrastructure resulting in 99.99% uptimes for all our services. Using the Ethereum Blockchain, moving off the main net and implementing off-chain technology we can ensure up to one million transactions a minute, security from the most time consuming and expensive hacking techniques that cause businesses around the world to lose millions in revenue, and services you can rely on.

We will implement off-chain technology within our Blockchain allowing for near instantaneous transfers between members in the Titanium ecosystem. The TBIS off-chain transfers will use hash-locked, digitally signed balance proofs. Balance proofs are binding agreements between two ecosystem members enforced by the blockchain, thus the off-chain balance proof is just as binding as on-chain transactions. All of this will be done with no fees, no lag and overhead of an on-chain transaction.

As everything will be on the Blockchain, no data will be stored centrally within data centers. Instead it will be spread across thousands of nodes which allows for a much less expensive solution to current data storage options, and privacy will be key as your data will not be sitting in a centralized location.

Titanium's Proof of Stake (PoS) masternodes will focus on mining verification and transfers in and out of our ecosystem because an off-chain solution within the closed ecosystem will not need mining to verify Peer-to-Peer (P2P) transactions. Without the need for on-chain transfer validation, the masternodes will have the ability of tiered functionality, ranging in price from low to high so that token holders with smaller holdings will have the ability to host a masternode.



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## Scalability

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Titanium will be able to provide a cryptographically secure Blockchain using off-chain technology without increasing the risk of any participant by allowing offloading of on-chain transactions. This solves the current scalability issue that current Blockchains have, as a limit is set regardless of how big the consumer base is. An off-chain solution scales with the number of users, which is why Titanium's Blockchain will guarantee VISA-like speeds of up to one million transactions a minute. Mining remains to be an expensive necessity to the Blockchain as these miners usually charge a fee to confirm transactions for solving "puzzles" by running a unique block header through a hash function. All ERC20 token fees currently are high, however Titanium intends to change this by abolishing them altogether.

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## Privacy

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The off-chain solution will add an extra layer of privacy and safety to the user as Peer-to-Peer (P2P) transactions will not appear on the public ledger. State channels are an important part of Titanium's revolution as they will assist decentralized systems to achieve properties of mainstream resources at the user's disposal.

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## Speed

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The current lack of lightning fast Blockchains is evidence that bottlenecking is entirely possible. With Titanium's P2P channels off-chain, transfers will be instant and on-chain bottlenecking will not be possible as those transactions will be moved to state channels, so the network never slows down always allowing for VISA-like speeds.



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# Titanium: Our Services

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Titanium Blockchain Infrastructure Services (TBIS) intends to disrupt the current market leaders in the Virtualization space by answering the question 'What if an entire IT enterprise could be decentralized, including data centers, firewalls, load-balancers, routers, switches, network appliances and servers?'

Titanium will provide a multitude of different services to help improve the Internet Infrastructure as a whole proving to be the best and most economical solution. Services such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Company as a Service™ (CaaS), Bring Your Own Cloud™ (BYOC), VORDEX™, Monitoring as a Service (MaaS), Blockchain as a Service (BaaS), Mining as a Service™ (MIaaS), Instant ICO Incubator™ (III), and a unique capability to create virtual cryptocurrency miners allowing customers to spin up emulated ASIC and/or GPU miners with a specified hash rate, etc., are expected to be developed by the Titanium team throughout the years ahead.

TBIS is developed on the blockchain platform, so all changes in the environment and assets will be recorded on an immutable ledger to correlate with standard IT change management and ITIL methodologies. Follow-the-Sun enterprise management and monitoring services, autonomous healing, and optimized disaster recovery and redundancy mechanisms will allow Titanium to attain close to 100% uptime of devices, applications and services. All of which will be available on every platform from Apple and Android iOS devices, to a thick client and a thin web-based client, from a simple yet sophisticated UI allowing administrators to create any component of their Infrastructure in minutes making TBIS a market leader.

A unique capability to create virtual cryptocurrency miners will be included in TBIS services allowing customers to spin up emulated ASIC and/or GPU miners with a specified hash rate.



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## TBIS Ecosystem







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## Infrastructure as a Service (IaaS)

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Businesses with limited resources are always left behind on necessities such as data access, storage capacity and security because these services come at an extremely high price in today's Internet Infrastructure. IaaS is quickly becoming the most widely adopted Infrastructure as it provides a simple solution to limitations such as physical hardware in data centers. Titanium will allow the ability to host hardware equipment such as firewalls, load balancers, routers, switches, servers, desktops, and more on a virtualized cloud environment. Titanium's virtualization will allow software such as operating systems and other IT networking components to be applied as well.

Data centers offer a plethora of vulnerabilities when storing company and customer information such as security and uptime issues. Titanium's IaaS will solve these weaknesses by providing a solution that protects your data and guarantees you will always have access, unlike data centers, which when degraded by hacking techniques such as DDoS attacks cannot provide you. Titanium will achieve this by storing your data on decentralized nodes that provide unparalleled protection from attacks as thousands of nodes would have to be taken down simultaneously to disable any service. Not only can you expect uptimes of 99.99%, TBIS will also offer improved data latency by allowing the closest node to provide data to the requesting application.

As your company grows, TBIS intends to help you along the way by providing scalability. Traditionally this would cost companies worldwide an extreme amount of time and money to upgrade as more data would need to be stored, requiring more rack space. With TBIS, your confidential information will not be restricted to a single server allowing your data capacity to securely grow as your business does.

*Titanium will allow the ability to host hardware equipment such as firewalls, load balancers, routers, switches, servers, desktops, and more on a virtualized cloud environment.*



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By providing all services in one, TBIS will be able to ensure that all equipment that is virtualized will be updated, patched and ready to function at all times. For example, in order to remove the hazards associated with new technology that makes current mining rigs obsolete, using TBIS IaaS, you would simply run a wizard in our UI to replace a GPU-based mining rig with an ASIC mining device. When new ASIC boards are released that are more energy efficient and have a significantly greater hashing rate, the virtual boards can be upgraded by drawing on our global network of computing power.



**Virtualized Hardware**



**Cryptographically Secure Blockchain**



**Decentralized Nodes**

**Titanium's IaaS intends to, but is not limited to:**

- Build a platform that is viewed as the best option for all business models to create, maintain, upgrade and patch on
- Make the platform a fast and stress-free environment to virtualize enterprise level IT Infrastructures with ease, all while decreasing the cost to the customer and downtime through network stability, security and reliability
- Create the most reliable website hosting services available at the customer's disposal in modern day technology, all by using Titanium's dedicated Blockchain so unlike traditional servers, they will continually stay up guaranteeing no downtime all while dramatically increasing security
- Implement the cutting-edge TBIS Enterprise Management Software with autonomous healing and security functions included in the Titanium Hydra Fault Tolerance Suite for all monitored elements and network components



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## Platform as a Service (PaaS)

Platform as a Service (PaaS) is often used for applications and other development while providing components to software. A key advantage developers will gain from using Titanium's PaaS is that they can build upon the platform as it will offer a framework to develop, test and even customize applications on. Titanium will offer a quick, simple, cost-effective and decentralized solution to PaaS.

By using Titanium's PaaS, you open yourself up to a huge number of upgrades such as resources that enable you to deliver everything from simple Distributed Applications (DApps) to sophisticated, decentralized enterprise applications. You only purchase the resources you need from Titanium on a pay-as-you-go basis and access them over a secure Internet connection.



**Development Tools**



**Operating Systems**



**Virtualized Hardware**



**Cryptographically Secure Blockchain**



**Decentralized Nodes**



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## Titanium's PaaS Advantages

- Tools included in PaaS allow for easy analyzing and mining of data so patterns can be found giving you insight into predicting outcomes and improving forecasting
- PaaS offers the same advantages as IaaS, and has additional features such as middleware, development tools, and other business tools to give you more advantages and control
- Titanium's PaaS will be able to cut coding time by producing tools to code new apps with pre-coded application components built into the platform, such as workflow, directory services, security features, search, etc.
- Uncomplicated development of cross-platform applications that perform on computers, mobile devices, and browsers making them much faster than current methods
- Allows for combined development efforts in any location as long as the team has access to the Internet
- Building, testing, deploying, updating, upgrading, and managing in one convenient environment making the process uncomplicated for every user



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## Desktop as a Service™ (DaaS™)

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Titanium's enclosed ecosystem will include its very own Desktop as a Service (DaaS). TBIS will provide a personal encrypted environment hosted on Titanium's Cloud that can be accessed by users on any device or terminal via the ultra-light Operating System (OS). DaaS will provide an environment where data is no longer stored on the user's devices, such as Bring Your Own Device (BYOD), where it will not be subject to viruses, theft or other security issues as all data interaction is done on Titanium's remote secured cloud Infrastructure using the Titanium Hydra Fault Tolerance Suite. This can be achieved from a local system such as a smart phone as the devices act as a gateway to access the remote environment. Unlike other cloud services, Titanium can guarantee 99.99% uptimes as the Virtualization Technologies will be backed up by our very own dedicated Blockchain explained on pages 7-8.

Leveraging state-of-the-art SHAKE256 Titanium Sponge Cryptographic Techniques, the user's files and Titanium OS will be future-proof encrypted and will remain accessible to the user with the Titanium Key. This will combine ultimate encryption and security while also allowing for ease of access. By using sponge construction SHAKE256, we can allow for a class of algorithms that have practical uses such as cryptographic hashes, message authentication codes, authenticated encryption, etc.



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## Titanium: CryptoEscrow™

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CryptoEscrow will be offered to provide users an environment that will allow buyers and sellers to conduct transactions free of worries that online purchases are associated with. By leveraging Ethereum escrow services based Smart Contracts, Titanium will allow for all types of supported cryptocurrencies to be used to purchase items, auction items, etc.

As smart phones are typically becoming the number one device used for online activities, TBIS will create a very simple smart phone interface that users of all abilities will be able to learn and use with ease. A common fear of purchasing online goods is fear. Whether that is fear of security issues or fear of delivery issues, Titanium will change that by releasing payments upon verification of delivery to the correct recipient. The Smart Contracts will be comprised of SHA256 hash splits between only the buyer and seller so that both parties are required to release the funds.



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## Titanium: VORDEX™

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To acquire cryptocurrency a user needs to purchase it via an exchange, as the most popular examples are all centralized, this offers a unique opportunity for Titanium's VORDEX™. Centralized exchanges pose a serious problem for the whole market as trades and orders are stored on a centralized private database allowing for such activities as hacks and theft.

Decentralized exchanges also exist, however the current solution to the centralized exchanges are not up to par with the current technologies that exist. These exchanges work by using P2P transactions and facilitates user transactions on a decentralized ledger or blockchain. Although this sounds better in retrospect, the current decentralized exchanges offer high latency and expensive network fees as validation time can be extremely long.

Titanium will revolutionize the exchange industry by creating a solution to the current problems with centralized and decentralized exchanges by offering VORDEX™. This will be a decentralized exchange using our own Blockchain. As state channel technology will be optimized through our Blockchain, these off-chain transactions that are Peer-to-Peer (P2P) will be instant, will have the lowest fees in the world and will remove the current issues with high fees and extreme lag time when requesting transactions.

VORDEX™ will offer support for the top twenty fiat currencies used worldwide and allow for exchange trading with the top two-hundred cryptocurrencies as per <https://coinmarketcap.com/> (CMC).

Titanium reserves the right to increase or decrease the number of fiat currencies and cryptocurrencies it supports at any time.



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## Titanium: Bring Your Own Cloud™ (BYOC™)

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Titanium intends to change the future not only for the Internet, but the computing world as a whole. This will be achieved through TBIS's own BYOC. By providing a suite of services, users can create a truly private computing environment.

People can join the BYOC secure computing environment by contributing hashpower to the network. BYOC is based on a PoW ERC20 token which generates an everchanging hash for communications encryption. When a user joins, they will be connected to a service that will download an open source Linux VPN application. Users can opt to use their own cryptocurrency miner if it meets the minimum requirements for OS platform, CPU, RAM, etc. Alternatively, one of the many virtual miner emulation choices available via the MaaS, TBIS offering could be leveraged. Please note that the BYOC service can be used for many other functions such as webservers, file servers, etc. A cryptocurrency mining device is only being used as an example. TBIS will provide a Centos Linux OS ISO image which has a special kick-start function to bring the device online and initiates a minimum amount of hashing on the local GPU. At this point the kick-start server will deploy to any server/device you connect in your private cloud environment. For mining hardware, BYOC will facilitate high-end servers being used as cryptocurrency miners.

For an ultra-secure computing environment, users can join the TBIS Instaminer Network. Based on micro-computers, which can be acquired from TBIS, a security context with the Peer-to-Peer (P2P) Blockchain can be established. If someone attempts to add a device via a method that does not include the TBIS micro-computers, the device will not be allowed to communicate on the network. The TBIS micro-computer will have an open VPN for security and will be able to deploy images to servers and miners in the local environment. Once the security context is established, files beyond the vanilla Centos OS will be obtained via our own Git Repository and docker swarm infrastructure. In short, the use of the TBIS micro-computer will make setting miners and servers up completely automated.





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## Titanium: Instant ICO Incubator™ (III™)

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ICOs are becoming increasingly more popular, however this is not necessarily a positive thing for cryptocurrencies because many do not have the time nor the funds to really showcase their idea, therefore giving ICOs a bad name.

Titanium intends to stop this negative stereotype by proving an Instant ICO Incubator solution to ensure that end-to-end launch services such as marketing and organization filter out the ICOs that have a real product from the ones that do not. To maintain an organizational standard, Titanium will create an accreditation for the ICOs accepted so they will be recognized. However, this process will not be an easy one to achieve, as a deep dive into each ICO will be done by personnel on the TBIS team accepting only those with promise and accreditation up to the standards of the Better Business Bureau (BBB) and Dun & Bradstreet combined. If accepted, Titanium will handle all the work for you so that your investments are as safe as possible.



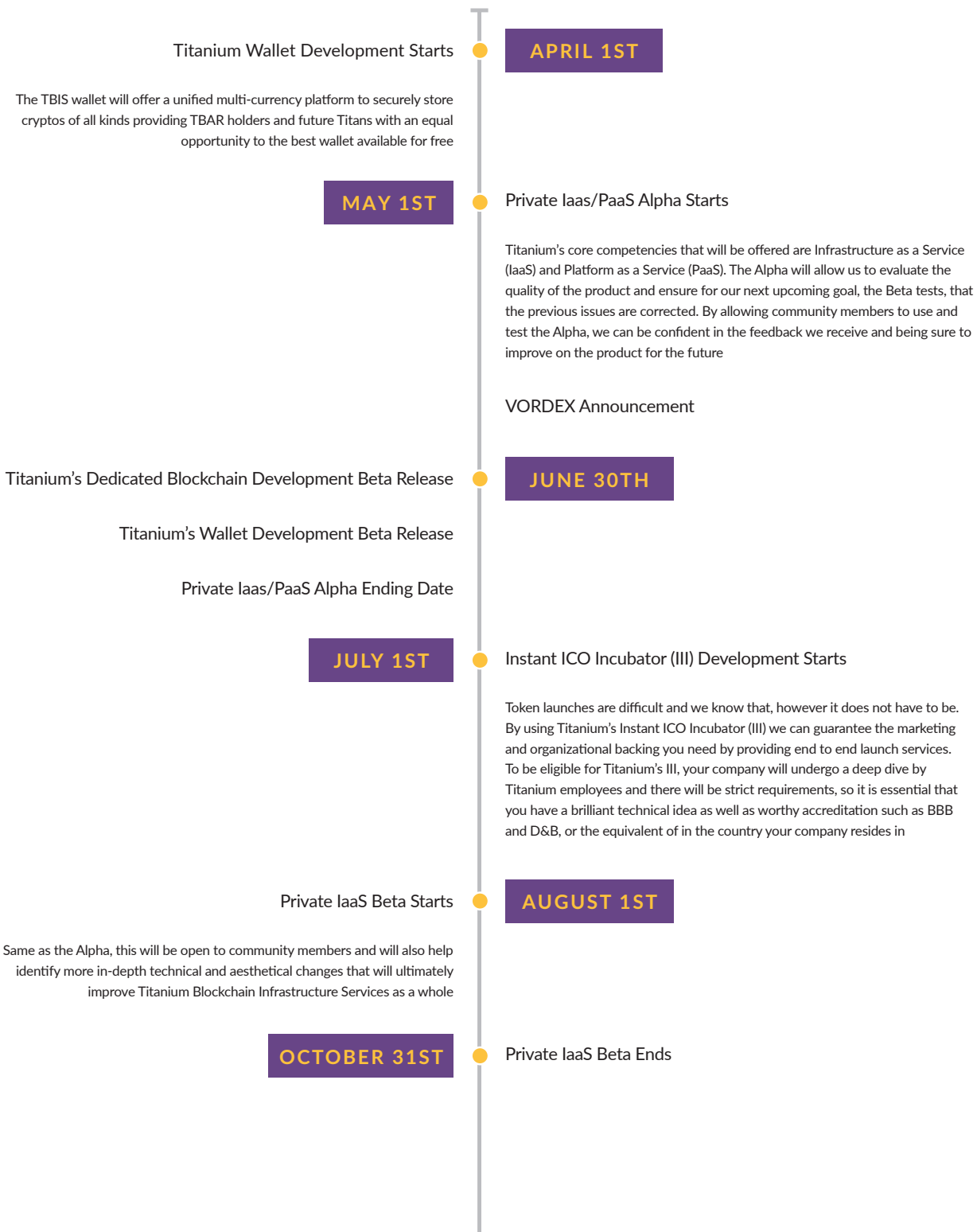
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# Roadmap



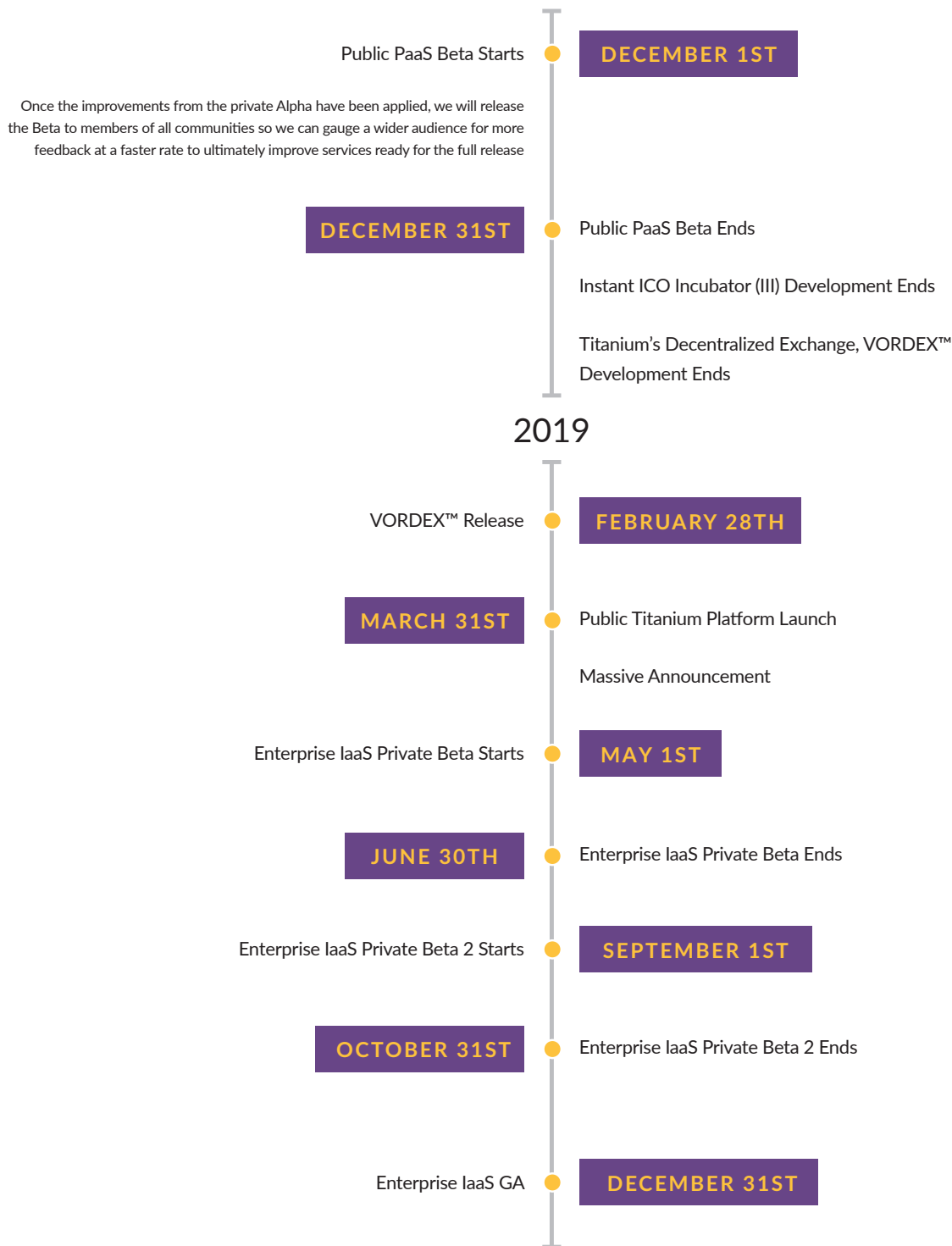


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# Titanium: Business Plan

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Our dedicated marketing team is committed to making sure TBIS is a success, so we can ensure healthy growth not only for the product and deployment of smart contracts, but also for the marketplace participants as their ability to earn TBAR will depend solely on the size of the user base.

By using targeted marketing, we can ensure new users will get involved with the services Titanium offers starting with early adopters and businesses already dealing with Blockchain technology. TBIS will make sure new users know what the TBIS platform is and how they can optimize its services through the simple and easy to use UI.

TBIS will offer services to not only mainstream businesses but to regular consumers who wish to start a company by allowing for services at very competitive rates. We believe that collaborating with other Blockchain innovators is essential to achieve mass adoption, while also offering mutual value to each other.

We will speak the language that matters most to our customers such as downtime, cost, and ease of use by demonstrating how our decentralized Infrastructure is faster, smarter, and stronger than available market comparisons. Using cars as an example, you do not need to be a mechanic to know that some are better engineered, faster, and/or safer than others. Similarly, you do not need to be a Blockchain engineer to recognize the benefits of Titanium Branded products. We will provide potential large clients early access of Titanium Branded products. By allowing our products to speak for themselves, we will achieve success.

Currently, Titanium has acquired six partnerships of which are:  
Electroneum (ETN), HTMLCOIN (HTML), BountyOx (BNTY), Phore (PHR), Voise (VOISE) and Project POMA



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# Legal Considerations

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Our platform will require users have a clear understanding of the rights and responsibilities of all parties involved in using TBIS. Future legal costs are also accounted for here.

TBAR are only functional tokens intended to be used to compensate TBIS for use of its platform. These tokens will give access to the TBIS ecosystem and products. TBAR are not for speculative investment. No promises regarding value or future performance are made regarding TBAR. No promises regarding any particular value of TBAR are made. No other rights associated with holding TBAR are given. Proceeds of the token sale may be spent as the company sees appropriate, which may change as deemed necessary in the maturation and advancement of TBIS.

Our team is investing heavily in the safety and security of the services TBIS provides, as detailed previously. However, we cannot protect against all possible sources of error, especially those in parts of the technology stack we cannot control. Therefore, all risks assumed by using the TBIS platform in any capacity, including but not limited to deploying smart contracts, creating and destroying virtual devices, and collecting TBAR through the marketplace are solely assumed by the user. Users must measure the gravity of potential value loss against their trust in the services TBIS will provide and act as they see appropriate. Never trust anything that one cannot afford to lose to any entity, TBIS or otherwise, without fully understanding all of the mechanics involved in the whole procedure. TBAR tokens are meant to be held and used by those well-versed in cryptographic tokens, only for the purpose of accessing the services offered on the TBIS platform. TBIS and its team must abide within the laws set forth in its operational country(ies). We intend to provide our services in as decentralized a fashion as reasonably feasible, but our legal entity must act according to the rules and bounds encoded in applicable laws. This includes but is not necessarily limited to laws governing financial operations, employment, fee charging, and sales.

## **EXHIBIT 18**



## **Titanium Blockchain Named a BBB Accredited Business**

### *Company Builds on a Foundation of Integrity and Trust*

Los Angeles, CA ([PRWEB](#)) November 27, 2017 -- Titanium Blockchain, a leading provider of infrastructure-based enterprise management, has earned accreditation from the Better Business Bureau of Los Angeles, signaling a commitment to ethical behavior and marketplace trust.

“We put open and honest relationships first and seek to mutually encourage innovation and growth with our customers,” says Michael Stollaire, Founder and CEO of Titanium Blockchain. “Having the BBB seal tells the world that we operate with integrity and follow through on our commitments.”

Accredited Businesses like Titanium Blockchain meet the standards embodied in the BBB Code of Business Practices: build trust, advertise honestly, tell the truth, be transparent, honor promises, be responsive, safeguard privacy and embody integrity.

“Michael and his associates have advanced an IT infrastructure solution based on principles of security and reliability so they are eminently qualified to display the BBB seal,” says Steve McFarland, President and CEO of the Better Business Bureau of Los Angeles & Silicon Valley. “We count numerous tech companies among our members and are pleased to welcome Titanium Blockchain to the fold.”

Titanium Blockchain is fueling everything from startup growth to large enterprise efficiency, helping organizations virtualize their entire IT enterprise and create a private cloud environment with native monitoring of mission-critical devices, applications and services.

“Almost everything can be virtualized these days and that includes creating an entire company, with IT infrastructure, from the privacy of one’s home,” says Stollaire. “After decades of basically doing things the same way, this will be the new normal for business and it will be more efficient, more secure and less expensive.”

Stollaire continues: “Technologies change, but trust endures. We understand that the way to earn and keep the public’s trust is to consistently deliver on our promises.”

#### About TBIS

Titanium Blockchain Infrastructure Services (TBIS) is a pioneer in shockproof Internet infrastructure built on blockchain technology. Unlike typical infrastructure services, where a company’s technology may exist on up to several hundred devices, the TBIS infrastructure resides on the decentralized Ethereum blockchain, which means zero outage time and impenetrable security at a fraction of the cost of traditional infrastructure systems. TBIS was founded by Michael Stollaire and is based in Los Angeles. Learn more at [tbis.io](#).

#### About BBB

BBB of Los Angeles & Silicon Valley serves the counties of Los Angeles, Monterey, San Benito, Santa Clara and Santa Cruz. For more than 100 years, Better Business Bureau has been helping people find businesses, brands and charities they can trust. Search business reviews and ratings on more than 5.3 million businesses and Charity Reports on 11,000 charities at [bbb.org](#).





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Better Business Bureau of Los Angeles & Silicon Valley

<http://www.bbb.org/losangelessiliconvalley>

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**Online Web 2.0 Version**

You can read the online version of this press release [here](#).

## **EXHIBIT 19**



## Titanium Raises First \$1M in ICO Token Pre-Sale

*Titanium Blockchain Infrastructure Services (Titanium) today announced that the company's first fundraising milestone; a softcap of \$1M has been reached ahead of the original timeline.*

LOS ANGELES ([PRWEB](#)) December 21, 2017 -- Titanium Blockchain Infrastructure Services (Titanium) today announced that the company's first fundraising milestone; a softcap of \$1M has been reached ahead of the original timeline. As is commonly the practice in ICOs, Titanium launched their token pre-sale which enables supporters to benefit from a bonus for an advance purchase of the currency (Titanium BARs) that will be used exclusively to purchase services from Titanium. "We are thrilled to see the market responding so positively to the business concept," stated Michael Stollaire, Founder and CEO of Titanium "we have a stellar team on board with an impressive 200+ years of combined experience in global infrastructure enterprise environments, we are excited to see that the community is as excited as we are," he said.

Titanium is positioned to disrupt the provisioning and virtualization space by being first-to-market, currently dominated by centralized service providers. The Titanium Ecosystem Services Will Include: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Company as a Service™ (CaaS), Bring Your Own Cloud™ (BYOC), DEXchange™, Monitoring as a Service (MaaS), Blockchain as a Service (BaaS), Mining as a Service™ (MIaaS), Instant ICO Incubator™ (III), etc. Titanium is developed on the blockchain platform, so all changes in the environment and assets will be recorded on an immutable ledger, to correlate with standard IT change management and ITIL methodologies. Titanium has already completed trials that demonstrate that it is possible to create entire infrastructure systems on distributed and redundant systems and are on time to deliver IaaS and the associated UIs in Q1 2018. By using a crypto-currency to offer services allows for the usage of smart contracts within the crypto-currency blockchain, making all transactions completely transparent and auditable. This brings a new level of trust and transparency to the business of distributed cloud computing.

"It has been a great experience so far," added Stollaire, "to have reached our first financial milestone with only a little marketing effort speaks volumes. The majority of the support is a result of word-of-mouth in the crypto currency community via social media groups." On December 1st the company opened the pre-sale and made supporting materials available to the public. The team supports queries and discussion in a Telegram channel that has grown to over a thousand members in just three weeks.

As CEO of EHI, the technology company that Stollaire founded in 1999, Stollaire has extensive experience in managing a March profitable corporation as well as a solid track record of developing relationships with companies such as eBay, General Electric, IBM, Apple and eBay to name just a few. Furthermore his position at EHI provided the opportunity to develop connections with technology leaders, some of whom join him at Titanium.

"We were impressed with the team's plans, proof of concept and the experience that Michael Stollaire's team brings to the table; it didn't take us long to take the leap and get behind the project," said Corey Hallett following his group's participation in the pre-sale. "Having the background from EHI has given the project great promise; the Nebraska Consortium felt that supporting the project was certainly in line with our short and long term goals," he said.

Titanium's presale will complete on December 31st following which the crowdfunding sale begins on January 1, 2018.



**Contact Information**

**Victoria Davies**

+1 (512) 415-7317

**Online Web 2.0 Version**

You can read the online version of this press release [here](#).

# **EXHIBIT 20**

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## Titanium completes Initial Coin Offering in 18 Days, 41 Days Ahead of Plans

Posted: Jan 19, 2018 12:10 AM PST

*TBIS announced the completion of their Initial Coin Offering (ICO), a sale of 35 million utility tokens (BARs) to have completed in just over two weeks.*

SHERMAN OAKS, Calif. (PRWEB) January 19, 2018

Today, Titanium Blockchain Infrastructure Services (Titanium) announced the completion of their Initial Coin Offering (ICO), a sale of 35 million utility tokens (BARs) to have completed in just eighteen (18) days, six weeks in advance of the planned ICO end date.

“Hitting this important target so far in advance of our expectations has served as an incredible validation of the project. Our team has worked unbelievably hard to meet demand and we are delighted to see such support from the community,” said founder and CEO Michael Stollaire. “Now that the ICO has been fully funded, we are able to focus on the next steps to building a world-class company,” he added.

In addition to leading the ICO Stollaire, with a view to help unite the blockchain community, has recently signed agreements to serve as a technology advisor to three other blockchain projects, Electroneum, HTMLCoin and Bounty0X.

Stollaire reported that the company and team will continue to focus on adding to the Titanium team, setting up new headquarters and delivering the core product scheduled for launch on 1 March; Internet as a Service (IaaS).

Stollaire, who has stayed very involved with the community throughout the ICO, has committed to maintaining his weekly video YouTube updates and will also host a live Q&A in the TBIS Official Telegram group, which today boasts in excess of 23,000 members. Throughout the ICO Stollaire has been available to answer questions and address the members discussions about the future of TBIS.

“It was my intent to conduct the ICO with the same service standards that will be a part of the Titanium values; transparency, accessibility and committed to our community, the team supporting the ICO delivered astonishing service given the growth of the community in such a small time,” said Stollaire when discussing the pace of the ICO.

### About TBIS

Titanium Blockchain Infrastructure Services is at the forefront of the utilization of blockchain technology across personal and enterprise networking systems. Titanium’s Initial Coin

Titanium completes Initial Coin Offering in 18 Days, 41 Days Ahe

Offering (ICO), saw 35M Titanium BARs purchased. Titanium is working to develop a  
primary solution that will utilize the entire ecosystem on a blockchain.  
The Titanium Core Team has over two-hundred (200) years of combined experience, and  
are considered to be in the top 1% of their respective technology fields. Titanium is also the  
very first blockchain start-up to achieve both Dun and Bradstreet (D&B) and Better  
Business Bureau (BBB) accreditation and is currently headquartered in Sherman Oaks,  
CA.

For the original version on PRWeb visit:

<http://www.prweb.com/releases/2018/01/prweb15101212.htm>

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# **EXHIBIT 21**





Richmond • Baltimore • Charlotte

Post Office Box 27622 • Richmond, VA 23261  
Phone (804) 697-8000 • [www.richmondfed.org](http://www.richmondfed.org)

Calais Fitzmaurice  
Senior Counsel

March 30, 2018

**VIA FEDERAL EXPRESS AND EMAIL**

ENF-CPU

[ENF-CPU@sec.gov](mailto:ENF-CPU@sec.gov)

U.S. Securities and Exchange Commission

444 South Flower Street, Suite 900

Los Angeles, California 90071

Re: In the Matter of Titanium Blockchain Infrastructure Services, Inc.  
(LA-4901)

To Whom It May Concern:

The Federal Reserve Bank of Richmond (the "Bank") respectfully encloses the following documents in response to the above-referenced subpoena:

1. Documents concerning the business relationship between the Bank and Michael Stollery, labeled FRBR000001, showing Mr. Stollery's contingent worker status with the Bank's business division, Federal Reserve Information Technology ("FRIT"), from December 21, 2010, to August 31, 2011; and
2. Documents concerning the business relationship between the Bank and John sharp, labeled FRBR000002, showing Mr. Sharp's contingent worker status with the Bank's business division, Federal Reserve Information Technology ("FRIT"), from May 27, 2010, to September 9, 2012.

As discussed during my March 29, 2018 telephone conversation with David S. Brown, attached are documents that are responsive to the subpoena that we have identified to date.

Please contact me at (804) 697-8497 if you have any questions or require additional information. If I am not available, please contact Shelley Dishner at (804) 697-2526. Thank you.

Sincerely,

A handwritten signature in black ink that reads "Calais Fitzmaurice". The signature is fluid and cursive, written over a white background.

Calais Fitzmaurice  
Senior Counsel

Enclosures

Copy to: David S. Brown, Senior Counsel  
[BrownDav@sec.gov](mailto:BrownDav@sec.gov)  
U.S. Securities and Exchange Commission  
444 South Flower Street, Suite 900  
Los Angeles, California 90071

**John Sharpe**  
Contingent Worker

Empl ID 338218  
Empl Record 0

**Work Location** Find First 1 of 1 Last

\*Effective Date 09/10/2012 Go To Row

Effective Sequence 0 \*Action Termination

HR Status Inactive \*Reason End Temporary Employment

Job Status Terminated \*Job Indicator Primary Job

---

Position Number  Current

Position Entry Date

Position Management Record

\*Regulatory Region USA United States

Company 05E Federal Reserve Bank Richmond

\*Business Unit EFA&S Architecture & Standards

\*Department 638716-E11 GCS Support Services Dall

Department Entry Date 07/01/2010

\*Location 1603 FRIT - Dallas

Establishment ID 1603 FRIT Dallas Date Created 02/08/2013

---

Last Start Date 05/27/2010 Termination Date 09/09/2012

Expected Job End Date

Override Last Date Worked

Last Date Worked 09/09/2012

**John Sharpe**  
Contingent Worker

Empl ID 338218  
Empl Record 0

**Job Information** Find First 1 of 1 Last

Effective Date 09/10/2012 Go To Row

Effective Sequence 0 Action Termination

HR Status Inactive Reason End Temporary Employment

Job Status Terminated Job Indicator Primary Job

---

\*Job Code 8901 Contractor

Entry Date 05/27/2010 Job Sensitivity Not Evaluated

Supervisor Level  Paul Maguire

Supervisor ID 204350

Reports To

\*Regular/Temporary Temporary \*Full/Part Part-Time

Empl Class  \*Officer Code None

\*Regular Shift Not Applicable Shift Rate

Shift Factor

---

**Standard Hours**

Standard Hours 40.00 Work Period C Contract

FTE 0.020000

---

**Contract Number**

Contract Number

Contract Type

USA

Michael Stollery  
Contingent Worker

Empl ID 339715  
Empl Record 0

**Work Location** Find First 1 of 1 Last

\*Effective Date: 09/01/2011 Go To Row

Effective Sequence: 0 Action: Termination

HR Status: Inactive Reason: End Temporary Employment

Job Status: Terminated Job Indicator: Primary Job

---

Position Number:  Current

Position Entry Date:

Position Management Record

\*Regulatory Region: USA United States

Company: 05E Federal Reserve Bank Richmond

\*Business Unit: EFS Services Delivery

\*Department: 638716-E11 GCS Support Services Dall

Department Entry Date: 12/21/2010

\*Location: 1603 FRIT - Dallas

Establishment ID: 1603 FRIT Dallas Date Created: 09/09/2011

---

Last Start Date: 12/21/2010 Termination Date: 08/31/2011

Expected Job End Date:

Override Last Date Worked

Last Date Worked: 08/31/2011

---

Job Data Employment Data Earnings Distribution Benefits Program Participation

Michael Stollery  
Contingent Worker

Empl ID 339715  
Empl Record 0

**Job Information** Find First 1 of 1 Last

Effective Date: 09/01/2011 Go To Row

Effective Sequence: 0 Action: Termination

HR Status: Inactive Reason: End Temporary Employment

Job Status: Terminated Job Indicator: Primary Job

---

\*Job Code: 8901 Contractor

Entry Date: 12/21/2010 Job Sensitivity:

Supervisor Level:

Supervisor ID: 280099 Douglas Sampson

Reports To:

\*Regular/Temporary: Temporary \*Full/Part: Part-Time

Empl Class:

\*Regular Shift: Not Applicable \*Officer Code: None

Shift Rate:

Shift Factor:

---

**Standard Hours** Work Period: C  Contract

Standard Hours: 40.00

FTE: 0.020000

---

**Contract Number** Next Contract Number

Contract Number:

Contract Type:

---

USA

**CERTIFICATE OF AUTHENTICITY OF BUSINESS RECORDS**

I, Calais Fitzmaurice, pursuant to 28 U.S.C § 1746, declare that:

1. I am employed by the Federal Reserve Bank of Richmond as Senior Legal Counsel, and am a custodian of records of said business.
2. I further declare that each of the records attached hereto is the original or a duplicate (exact photocopy) of an original record in the custody of the Federal Reserve Bank of Richmond.
3. I further certify that the documents attached hereto are records that were:
  - a) made at or near the time of the occurrence of the matters set forth therein, by, or from information transmitted by, a person with knowledge of those matters;
  - b) kept in the course of regularly conducted business activity;
  - c) made by the regularly conducted business activity as a regular practice; and
  - d) if such records are not the originals, such records are duplicates of the originals.

I declare under penalty of perjury that the foregoing is true and correct.

March 30, 2018  
(Date of Execution)

Calais Fitzmaurice  
(Print Name)

Richmond, Virginia  
(Place of Execution)

  
(Signature)

# **EXHIBIT 22**



www.dallasfed.org

VIA EMAIL

March 30, 2018

ENF-CPU  
U.S. Securities and Exchange Commission  
100 F Street, N.E. Mailstop 5973  
Washington, DC 20549-5973

Re: Subpoena In the Matter of Titanium Blockchain Infrastructure Services, Inc. LA-4901 – Federal Reserve Bank of Dallas

To Whom It May Concern,

The Federal Reserve Bank of Dallas ("FRB-Dallas") received a subpoena from your office on March 26, 2018 (the "Subpoena") requesting that the FRB-Dallas produce all documents concerning (i) any business relationship between FRB-Dallas and Titanium Blockchain Infrastructure Services, Inc., EHI Internetwork and Systems Management, Inc., or Michael Alan "Stollery"; (ii) authorizations by FRB-Dallas to the aforementioned to use references to Federal Reserve Bank, Federal Reserve System, or the Federal Reserve System seal; and (iii) any employment or contractual relationship with John Sharpe.

After searching available FRB-Dallas records, FRB-Dallas was unable to identify responsive documents concerning a business relationship with Titanium Blockchain Infrastructure Services, Inc., EHI Internetwork and Systems Management, Inc., or Michael "Stollery." FRB-Dallas did, however, identify two records indicating that a Mr. John Sharpe, who was a Federal Reserve Bank of Richmond contractor, worked on location at FRB-Dallas for a period of time, copies of which are attached to this letter. The first record is a cardholder report from our Law Enforcement Unit's Lenel system indicating Mr. Sharpe was issued a photo identification badge on May 23, 2008, which was deactivated on September 20, 2012. The second record is a computer screenshot of Mr. Sharpe's photo badge information from the Lenel system as this information is not configured to print as a report. Finally, as requested, a certification of authenticity of business records is also attached to this letter.

Regards,

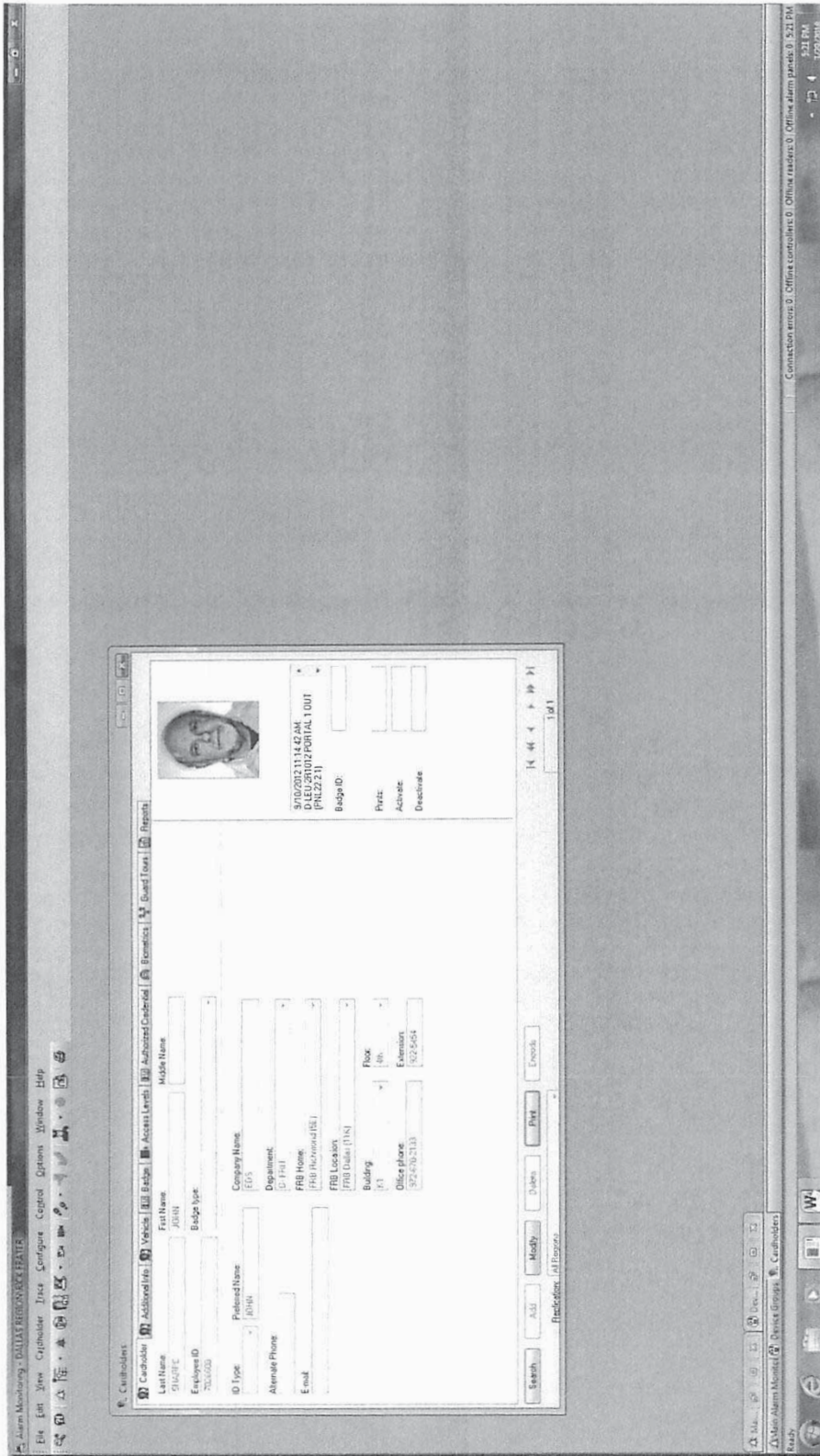
A handwritten signature in black ink that reads "David Teeples".

David Teeples  
Deputy General Counsel  
[David.Teeples@dal.frb.org](mailto:David.Teeples@dal.frb.org)

Enclosures: 2

CC: *via email* [BrownDav@sec.gov](mailto:BrownDav@sec.gov)  
David Brown, Senior Counsel

2200 N. Pearl Street, Dallas, TX 75201



OnGuard 7.2 Enterprise

## All Cardholders, by Last Name

WHERE (Last Name LIKE SHARPE) AND (First Name LIKE JOHN)

Report Date: 3/26/2018 3:45:26PM Central Daylight Time

<u>Badge ID</u>	<u>Issue</u>	<u>Badge Status</u>	<u>Badge Type</u>	<u>Activate</u>	<u>Deactivate</u>
SHARPE, JOHN 7026600	0	Terminated	FR SYSTEM CONTRACTOR/VENDOR BADGE	5/23/2008 12:00:00AM	9/20/2012 11:00:00AM

---

---

**Total Cardholders: 1**

---

---



**CERTIFICATE OF AUTHENTICITY OF BUSINESS RECORDS**

I, Barry Hines, pursuant to 28 U.S.C. § 1746, declare that:

1. I am employed by the Federal Reserve Bank of Dallas as Assistant Chief of Law Enforcement, and am a custodian of records of said business.
2. I further declare that each of the records attached hereto is the original or a duplicate (exact photocopy of an original record in the custody of the Federal Reserve Bank of Dallas.
3. I further certify that the documents attached hereto are records that were:
  - a. Made at or near the time of the occurrence of the matters set forth therein, by, or from information transmitted by, a person with knowledge of those matters;
  - b. Kept in the course of regularly conducted business activity;
  - c. Made by the regularly conducted business activity as a regular practice and;
  - d. If such records are not the originals, such records are duplicates of the originals.

I declare under penalty of perjury that the foregoing is true and correct.

<u>March 30, 2018</u>	<u>Barry G. Hines</u>
Date of execution	Print Name
<u>FRB - Dallas</u>	<u>[Signature]</u>
Place of execution	Signature

# **EXHIBIT 23**



**ANGELA DIRR**  
*Vice President and Assistant General Counsel*  
Legal Department

1000 Peachtree Street, N.E.  
Atlanta, Georgia 30309-4470  
404.498.8264  
fax 404.498.7858  
angela.dirr@atl.frb.org

April 4, 2018

David S. Brown  
Senior Counsel  
Division of Enforcement  
United States Securities and Exchange Commission  
444 S. Flower Street  
Suite 900  
Los Angeles, California 90071

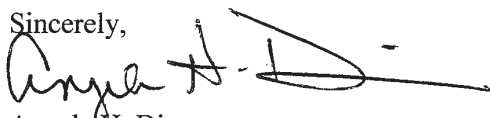
Re: In the Matter of Titanium Blockchain Infrastructure Services, Inc.  
(LA-4901)

Dear Mr. Brown:

The Federal Reserve Bank of Atlanta (“FRBA”) received the subpoena issued pursuant to formal order by the U.S. Securities and Exchange Commission in the above-referenced matter. This letter notifies you that the FRBA has no documents described in the attachment to the subpoena that are responsive to the subpoena.

I trust this discharges the FRBA’s obligation under the subpoena, but if you have any questions about this, please contact me at (404) 498-8264.

Sincerely,

  
Angela H. Dirr



600 ATLANTIC AVENUE • BOSTON, MA 02210  
WWW.BOSTONFED.ORG

April 2, 2018

VIA EMAIL

U.S. Securities and Exchange Commission  
Attn: David S. Brown, Senior Counsel  
Los Angeles Regional Office  
444 S. Flower Street Suite 900  
Los Angeles, California 90071

Dear Mr. Brown:

This letter serves as confirmation that after an extensive search, the Federal Reserve Bank of Boston has no records responsive to the subpoena dated March 22, 2018, "In the Matter of Titanium Blockchain Infrastructure Services, Inc." (LA-4901). If you have any questions, you may contact me at (617) 973-3531 or [Erin.Devereaux@bos.frb.org](mailto:Erin.Devereaux@bos.frb.org).

Sincerely,

  
Erin G. Devereaux  
Associate Counsel

cc: ENF-CPU@sec.gov

FEDERAL RESERVE BANK  
OF CHICAGO

March 23, 2018

**VIA U.S. MAIL and E-MAIL**

Mr. David S. Brown, Senior Counsel  
U.S. Securities and Exchange Commission  
444 S. Flower Street, Suite 900  
Los Angeles, CA 90071

RE: Subpoena in the Matter of Titanium Blockchain Infrastructure Services, Inc. (LA-4901)

Dear Mr. Brown,

This letter will serve as the Federal Reserve Bank of Chicago's response to the subpoena you served dated March 22, 2018 in the above-referenced matter. The Reserve Bank has reviewed its records and has nothing responsive to the subpoena.

Please contact me at 312-322-6145 or [hannah.e.cummings@chi.frb.org](mailto:hannah.e.cummings@chi.frb.org) if you have any questions.

Sincerely,



Hannah E. Cummings  
Senior Counsel

FEDERAL RESERVE BANK *of* CLEVELAND

William D. Fosnight  
*Senior Vice President & General Counsel*

PO Box 6387  
Cleveland, OH 44101-1387  
216.579-2861 *office*  
216.287.0474 *cell*  
216.579.2990 *fax*  
William.D.Fosnight@clev.frb.org  
www.clevelandfed.org

March 27, 2018

David S. Brown, Esq., Senior Counsel  
Division of Enforcement  
U.S. Securities and Exchange Commission  
444 S. Flower Street, Suite 900  
Los Angeles, CA 90071

Re: In the Matter of Titanium Blockchain Infrastructure Services, Inc. (LA-4901)

Dear Mr. Brown:

This is in response to your correspondence of March 22, 2018, and accompanying subpoena in regard to the above-referenced matter. The Federal Reserve Bank of Cleveland's ("Bank") responses to the Documents Requested section of the subpoena are as follows:

1. The Bank does not have and has not had any business relationship with Titanium Blockchain Infrastructure Services, Inc. (EIN-82-3126792).
2. The Bank does not have and has not had any business relationship with EHI Internetwork and Systems Management, Inc., aka EHI-INSM (EIN: 95-4858831).
3. The Bank does not have and has not had any business relationship with Michael Alan Stollery, aka Michael Stollaire or Michael Stoller (SSN: 074-66-7315; DOB: 02/23/1968).
4. The Bank has not authorized Titanium Blockchain Infrastructure Services, Inc.; EHI Internetwork and Systems Management, Inc. (aka EHI-INSM, Inc.); or, Michael Alan Stollery (aka Michael Stollaire or Michael Stoller) to use the name "Federal Reserve Bank," or "The Federal Reserve System," and/or the Federal Reserve System seal.
5. The Bank does not have and has not had an employee or independent contractor named John Sharpe.

David S. Brown, Esq.  
March 27, 2018  
Page Two

Since there were no records to produce, I have not enclosed the "Certificate of Authenticity of Business Records" requested in your correspondence. If you should have any questions or require further information regarding this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "William D. Fosnight". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

William D. Fosnight  
Senior Vice President and General Counsel

WDF:bt  
VIA FEDERAL EXPRESS

RECEIVED  
MAIL ROOM

2018 MAR 28 AM 9:39

U.S. SEC  
LOS ANGELES  
REGIONAL OFFICE



ORIGIN: D.B.K.A. (216) 579-2161  
 FEDERATION BANK CLEVELAND  
 FEDERAL RESERVE BANK CLEVELAND  
 1433 EAST 91TH STREET  
 CLEVELAND, OH 44114  
 UNITED STATES US

SHIP DATE: 27MAR18  
 ACT.WGT: 0.25 LB  
 CAD: 102546968/NET3980

BILL SENDER

TO **DAVID S. BROWN, ESQ., SENIOR COUNSEL**  
**U.S. SECURITIES AND EXCHANGE COMMISS**  
**444 S. FLOWER STREET, SUITE 900**

**LOS ANGELES CA 90071**

(323) 965-3321 REF  
 NY PO DEPT 40 - LEGAL

WED - 28 MAR 3:00P  
 STANDARD OVERNIGHT

TRK# 7718 4559 3504  
 0201

**NH JBPA**  
 CA-US **LAX**  
**90071**




552J1107F5/DCA5

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM  
WASHINGTON, DC 20551

LEGAL DIVISION

April 5, 2018

David S. Brown  
U.S. Securities and Exchange Commission  
444 South Flower Street, Suite 900  
Los Angeles, California 90071

Re: In the Matter of Titanium Blockchain Infrastructure Services, Inc.  
(LA-4901)

Dear Mr. Brown:

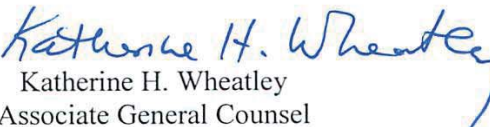
This responds to the administrative subpoena dated March 22, 2018, issued by the Securities and Exchange Commission (the "Commission") seeking documents from the Board of Governors of the Federal Reserve System (the "Board") in connection with an ongoing investigation. Specifically, the Commission sought information about any business relationship, including as vendor, employee, contractor, or otherwise, between the Board and:

- Titanium Blockchain Infrastructure Services, Inc. ("Titanium")
- EHI Internetwork and Systems Management, Inc., aka EHI-INSM, Inc. ("EHI")
- Michael Alan Stollery aka Michael Stollaire aka Michael Stoller ("Stollery")
- John Sharpe

In addition, the Commission sought documents indicating whether the Board had authorized the use of the name "The Federal Reserve Bank," "The Federal Reserve System," or the Federal Reserve System seal by Titanium, EHI, or Stollery.

As Associate General Counsel for the Board, I directed Board staff to search in all locations in which the requested documents might reasonably be expected to be found. No responsive documents were located as a result of this search.

Sincerely,

  
Katherine H. Wheatley  
Associate General Counsel

RECEIVED  
MAIL ROOM

2018 APR 10 AM 7:10

U.S. SEC  
LOS ANGELES  
REGIONAL OFFICE

*Katherine H. Winters*  
Katherine H. Winters  
Regional Director  
Los Angeles



Board of (
Federal Reserve System
Washington, D.C. 20551-0001
OFFICIAL BUSINESS



David S. Brown
U.S. Securities and Exchange Commission
444 South Flower Street, Suite 900
Los Angeles, California 90071



FEDERAL RESERVE BANK of KANSAS CITY

March 30, 2018

David S. Brown, Senior Counsel  
U.S. Securities and Exchange Commission  
444 South Flower Street, Suite 900  
Los Angeles, California 90071

Re: **In the Matter of Titanium Blockchain Infrastructure Services, Inc.**  
(LA-4901)

**FOIA CONFIDENTIAL TREATMENT REQUESTED**

Dear Mr. Brown:

I write on behalf of the Federal Reserve Bank of Kansas City (“FRBKC”) in response to the subpoena dated March 22, 2018 in the above-referenced matter. Your cover letter and the accompanying subpoena and document requests do not contain a statement of the relevant date range for the document requests. Accordingly, the following responses are based on, and limited to, the information available in our current electronic records databases and software applications as of the date hereof.<sup>1</sup>

*Request 1: “All documents concerning any business relationship between you and Titanium Blockchain Infrastructure Services, Inc. (EIN: 82-3126792) including but not limited to it being a customer, client, vendor, supplier, contractor, independent contractor, or consultant for you in information technology or otherwise. This includes procurement records for contracts and payments, and security records for background investigations, badge photos, and contact information.”*

The Bank does not have in its possession any documents concerning a business relationship with Titanium Blockchain Infrastructure Services, Inc. (“Titanium”). Furthermore, the Bank does not have, and to its knowledge has never had, a business relationship of any kind with Titanium.

*Request 2: “All documents concerning any business relationship between you and EHI Internetwork and Systems Management, Inc. aka EHI-INSM, Inc. (EIN: 95-4858831)*

---

<sup>1</sup> For your reference, the relevant archive capabilities are:

Procurement/contract records: mid-2008 to present

Purchasing Card (P-Card) transaction records: 2013 to present

Accounts Payable records: 2008 to present

Human Resources records of FRBKC employees and contractors employed by staffing agencies: 1998 to present



*including but not limited to it being a customer, client, vendor, supplier, contractor, independent contractor, or consultant for you in information technology or otherwise. This includes procurement records for contracts and payments, and security records for background investigations, badge photos, and contact information.”*

The Bank does not have in its possession any documents concerning a business relationship with EHI Internetwork and Systems Management, Inc., aka EHI-INSM, Inc. (“EHI”). Furthermore, the Bank does not have, and to its knowledge has never had, a business relationship of any kind with EHI.

*Request 3: “All documents concerning any business relationship between you and Michael Alan Stollery aka Michael Stollaire or Michael Stoller (SSN: 074-66-7315; DOB: 02/23/1968) including but not limited to him being an employee, customer, client, vendor, contractor, independent contractor, or consultant of yours in information technology or otherwise. This includes procurement records for contracts and payments, security records for background investigations, badge photos, and contact information, and human resource records (include personnel file, position title, dates of employment, location of employment, contact information).”*

The Bank does not have in its possession any documents concerning a business relationship with Michael Alan Stollery, aka Michael Stollaire or Michael Stoller (“Mr. Stollery”). Furthermore, the Bank does not have, and to its knowledge has never had, a relationship of any kind with Mr. Stollery, whether as employee, customer, client, vendor, contractor, independent contractor, consultant, or otherwise.

*Request 4: “All documents concerning authorization you have given to the following to use the name “The Federal Reserve Bank” or “The Federal Reserve System” and/or the Federal Reserve System seal:*

- a. Titanium Blockchain Infrastructure Services, Inc.;*
- b. EHI Internetwork and Systems Management, Inc. aka EHI-INSM, Inc.; and*
- c. Michael Alan Stollery aka Michael Stollaire or Michael Stoller”*

The Bank has never authorized Titanium, EHI, or Mr. Stollery to use the names “The Federal Reserve Bank” or “The Federal Reserve System,” or to use the Federal Reserve System seal in any capacity whatsoever.

*Request 5: “All documents concerning whether you have or had an employee or independent contractor named John Sharpe. This includes procurement records for contracts and payments, security records for background investigations, badge photos, and contact information, and human resource records (include personnel file, position title, dates of employment, location of employment, contact information).”*

The Bank does not have, and to its knowledge has never had, an employee named John Sharpe.



The information contained herein represents confidential information within the contemplation of the applicable provisions of the Freedom of Information Act (“FOIA”) and the rules of the Commission which implement FOIA, including, but not limited to, 17 C.F.R. § 200.83 and is furnished solely for the use of the Commission. Accordingly, we request that the information contained herein be afforded confidential treatment pursuant to FOIA and the rules of the Commission implementing FOIA. Pursuant to 17 C.F.R. § 200.83, a copy of this response and request for confidential treatment also has been sent to the Commission’s FOIA Office. In accordance with 17 C.F.R. § 200.83 and any other applicable regulations, please promptly notify the General Counsel of FRBKC of any request for disclosure of this letter pursuant to FOIA, including the identity of the party seeking disclosure, and the nature, scope, and timing of the request. The notice should be given in sufficient time to allow FRBKC to oppose disclosure.

This letter completes FRBKC’s response to the subpoena. If you have any further questions or requests, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Bill Vandivort".

Bill Vandivort  
Counsel

cc: Connie Leung, Special Agent  
Office of Inspector General, Western Region  
Board of Governors of the Federal Reserve System  
Via email to [connie.n.leung@frb.gov](mailto:connie.n.leung@frb.gov)

Office of Freedom of Information and Privacy Act Operations  
U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549

Federal Reserve Bank of Minneapolis



90 Hennepin Avenue, P.O. Box 291  
Minneapolis, Minnesota 55480-0291  
Phone (612) 204-5000

March 29, 2018

ENF-CPU  
U.S. Securities and Exchange Commission  
100 F Street, N.E. Mailstop 5973  
Washington, DC 20549-5973

VIA Email to [ENF-CPU@sec.gov](mailto:ENF-CPU@sec.gov)

Re: In the Matter of Titanium Blockchain Infrastructure Services, Inc. (LA-4901)

To Whom It Concerns:

This is in response to the subpoena, dated March 22, 2018, from David S. Brown, Senior Counsel, U.S. Securities and Exchange Commission, regarding the above referenced matter.

Records at the Federal Reserve Bank of Minneapolis have been searched and it does not have, nor does it have a record of ever having, documents concerning those persons or parties identified in the above referenced subpoena. Records regarding employees, contractors and vendors go back to approximately 1996, with visitor records dating back to approximately 2004; procurement records for contracts go back to approximately 2006; and fingerprint screening goes back to 1997.

Sincerely,

Melissa Rosenbaum  
Senior Counsel

Copy to:  
David S. Brown, Senior Counsel  
U.S. Securities and Exchange Commission  
444 South Flower Street, Suite 900  
Los Angeles, CA 90071  
[BrownDav@sec.gov](mailto:BrownDav@sec.gov)



FEDERAL RESERVE BANK of NEW YORK

33 LIBERTY STREET, NEW YORK, NY 10045-0001

April 2, 2018

VIA EMAIL

David S. Brown, Senior Counsel  
U.S. Securities and Exchange Commission  
444 S. Flower Street, Suite 900  
Los Angeles, CA 90071

Re: Subpoena to Federal Reserve Bank of New York in  
In the Matter of Titanium Blockchain Infrastructure Services, Inc. (LA-4901)

Dear Mr. Brown:

We are in receipt of a subpoena dated March 22, 2018 issued to the Federal Reserve Bank of New York (the "New York Fed") in the above-referenced matter (the "Subpoena"). After conducting a reasonable search of our files, we did not locate any documents responsive to the Subpoena. Specifically, we did not locate any documents concerning any contractual or employee relationship between the New York Fed and Michael Stollaire, Michael Stollery, Michael Stoller, John Sharpe, Titanium Blockchain Infrastructure Services, Inc., EHI Internetwork and Systems Management, Inc., or EHI-INSM.

Please call me at 212.720.5111 if you have any questions.

Sincerely,



Meghan McCurdy  
Senior Counsel and Assistant Vice President



FEDERAL RESERVE BANK  
OF PHILADELPHIA

Legal Department

Federal Reserve Bank of Philadelphia  
Ten Independence Mall  
Philadelphia, PA 19106-1574

215-574-6617  
215-574-2554 (fax)  
www.phil.frb.org

March 26, 2018

David S. Brown, Sr. Counsel  
U.S. Securities and Exchange Commission  
444 South Flower Street, Suite 900  
Los Angeles, CA 90071

RE: In the Matter of Titanium Blockchain Infrastructure Services, Inc. (LA-4901)

Dear Mr. Brown:

By way of response to your letter dated March 22, 2018, and the accompanying subpoena, and after reviewing the pertinent categories of its records, the Federal Reserve Bank of Philadelphia (the "Bank") states as follows:

1. The Bank does not have in its possession any documents concerning a business relationship with Titanium Blockchain Infrastructure Services, Inc. ("Titanium"). Furthermore, the Bank does not have, nor has it ever had, a business relationship of any kind with Titanium.
2. The Bank does not have in its possession any documents concerning a business relationship with EHI Internetwork and Systems Management, Inc., aka EHI-INSM, Inc. ("EHI"). Furthermore, the Bank does not have, nor has it ever had, a business relationship of any kind with EHI.
3. The Bank does not have in its possession any documents concerning a business relationship with Michael Alan Stollery, aka Michael Stollaire or Michael Stoller ("Mr. Stollery"). Furthermore, the Bank does not have, nor has it ever had, a relationship of any kind with Mr. Stollery, whether as employee, customer, client, vendor, contractor, independent contractor, consultant, or otherwise.
4. The Bank has never authorized Titanium, EHI, or Mr. Stollery, or any other person or entity, to use the name "The Federal Reserve Bank" or "The Federal Reserve System," or to use the Federal Reserve System seal in any capacity whatsoever.
5. The Bank does not have, nor has it ever had, an employee named John Sharpe.

I regret that I cannot be of more assistance to you in your investigation.

Sincerely yours,

Stephen J. Smith  
AVP & Counsel



FEDERAL RESERVE BANK *of* ST. LOUIS  
CENTRAL TO AMERICA'S ECONOMY®

P.O. Box 442  
St. Louis, MO 63166

March 26, 2018

ENF-CPU  
U.S. Securities and Exchange Commission  
100 F St., N.E., Mailstop 5973  
Washington, DC 20549-5973

RE: In the Matter of Titanium Blockchain Infrastructure Services, Inc. (LA-4901)

Dear Sir or Madam:

In response to your subpoena issued March 22, 2018, related to the matter named above, the Federal Reserve Bank of St. Louis has reviewed its business records and has no responsive records.

Please contact me at 314-444-8775 or [Cathryn.Hohl@stls.frb.org](mailto:Cathryn.Hohl@stls.frb.org) if you have any questions about this.

Sincerely,

Cathryn L. Hohl  
Assistant General Counsel

cc: David S. Brown, Senior Counsel  
U.S. Securities and Exchange Commission  
444 South Flower Street, Suite 900  
Los Angeles, California 90071

# **EXHIBIT 24**



Titanium Blockchain Infrastructure Services Inc. [Follow](#)  
Feb 21 · 2 min read



Today, in a malicious act, approximately 16 million BAR ICO tokens were taken from Titanium company wallets. These wallets had been storing four million reserve BAR and 12 million BAR for team allocations, recently minted by TBIS engineers. TBIS Inc. CEO, Michael Stollaire, has locked down all company accounts and notified authorities with case sensitive information regarding the perpetrators of this illegal theft.

For ICO investors and BAR token holders this malicious act means that a large number of the signature token of Titanium’s closed ecosystem (BAR) is now in the hands one or more criminals who may at any time choose to devalue the token by selling some, or all of it. According to Titanium CCO, Martha Breed, “While it is the hope of the entire Titanium team that the perpetrators of this act be brought swiftly to justice, we find it necessary to take unprecedented steps to provide a transparent solution immediately.” To this end:

1. TBIS will fork their ICO token (BAR) and create a second token (TBAR) to be used within Titanium’s closed ecosystem for goods and services in place of BAR token.
2. TBAR will be issued in a 1:1 ratio to all BAR holders. This includes both ICO participants and those who have acquired bar via exchange purchases or other means. Please note however, that TBAR will not be issued for most of the BAR involved in today’s malicious act.
- 3.

Everyone with BAR currently in an Erc20 wallet will automatically receive TBAR alongside BAR in their wallets.

4. For those who currently have BAR on an exchange, a simple form will be provided in 24–24 hours for verification before TBAR is released in the same amount as current BAR holding.
5. Titanium has already asked that both official and unofficially announced exchanges cease allowing BAR token to trade, and will ask that TBAR begin trading in place of BAR after distribution.

GOOD TO NOTE: Titanium’s Minimum Viable Product (MVP) has been promised by March 1st, 2018. MVP production and release will not be affected by today’s events. Please stay up to date with all official announcements by joining Titanium’s official Telegram community.

QUICK SUMMARY: Due to a malicious action resulting in illegal theft of 16mil ICO tokens, BAR token is being replaced with a forked token, TBAR. TBAR will replace all circulating BAR tokens. TBAR will automatically be sent in a ratio of 1:1 to all Ethereum wallets currently holding BAR token. A simple form will be provided for those with BAR currently on exchanges. This is for verification before TBAR is released and only for those with BAR currently on exchanges. Titanium’s MVP remains unaffected and will be ready for release by original target date of March 1st, 2018.



# **EXHIBIT 25**



LOS ANGELES POLICE DEPARTMENT



CHARLIE BECK  
Chief of Police

P. O. Box 30158  
Los Angeles, CA 90030  
Telephone: (213) 486-8300  
FAX: (213) 486-8330  
TDD: (877) 275-5273  
Ref #: 10.4

ERIC GARCETTI  
Mayor

Date: RSS APR 02 2018 5 8 1

Dear Requestor:

The Records and Identification (R&I) Division is in receipt of your correspondence requesting offender record information. However, we are unable to process your request for the following reason(s):

The report you requested for booking/DR number \_\_\_\_\_ is not available.

There is no record of the incident in our files.

The incident did not take place within the jurisdiction of the LAPD. We suggest you contact \_\_\_\_\_

The investigating officer will not authorize release of the requested report. Please contact Detective \_\_\_\_\_, \_\_\_\_\_ Division, at ( ) \_\_\_\_\_.

Our search indicates that your subject \_\_\_\_\_ was booked into our jail facility by another law enforcement agency. Please contact the \_\_\_\_\_ for further information.

A signature of the requestor or Waiver of Release must be signed by the applicant and accompany your request for information. We are returning your original request for your convenience. Please resubmit it along with the requested document.

Other \_\_\_\_\_

If you have any questions regarding this correspondence, please contact the Retrieval and Dissemination Unit supervisor at (213) 486-8300.

Very truly yours,

CHARLIE BECK  
Chief of Police

TERRY L. CARTER, Police Administrator  
Commanding Officer  
Records and Identification Division

02/2015-01

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[www.LAPDOnline.org](http://www.LAPDOnline.org)  
[www.joinLAPD.com](http://www.joinLAPD.com)



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Los Angeles Regional Office  
444 S. Flower Street, Suite 900  
Los Angeles, CA 90071

DIVISION OF ENFORCEMENT

David S. Brown  
Staff Attorney  
Phone: 323-965-3321  
Fax: 213-443-1903  
Email: BrownDsv@sec.gov

March 6, 2018

VIA FAX: 213-486-8330

Los Angeles Police Department  
Records and Identification Division  
Report Services Section, Retrieval and Dissemination  
100 West 1<sup>st</sup> Street  
Los Angeles, CA 90012




Re: In the Matter of Titanium Blockchain Infrastructure Services, Inc. (LA-4901)

Dear Retrieval and Dissemination:

The staff of the United States Securities and Exchange Commission, Division of Enforcement, is conducting an investigation in the above matter that is confidential and non-public (pursuant to, including but not limited to, 17 C.F.R. §203.5). As part of that investigation we request the assistance of the Los Angeles Police Department, Records and Identification Division, Report Services Section, Retrieval and Dissemination.

We request that LAPD search whether a crime was reported in 2018 by:

- 1. Michael Alan Stollery aka Michael Stollaire  ✓
- 2. Titanium Blockchain Infrastructure Services, inc.; ✓
- 3. EHI Internetwork and Systems Management, Inc.; or ✓
- 4. EHI-INSM, Inc. ✓

If you need additional information about the subjects in order to process this request, please contact me. If one of the subjects filed a complaint or police report in 2018, we request that you send me a copy. If the subjects did not report a crime in 2018, we request that you send us a document confirming that no complaint or police report was filed. We submit this request along with the enclosed SEC Form 1662 that includes a List of Routine Uses that we may make of information provided to the Commission and other important information.

Thank you in advance for your attention to this request.

Sincerely,  


David S. Brown  
Staff Attorney

Enclosure: SEC Form 1662

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

Supplemental Information for Persons Requested to Supply  
Information Voluntarily or Directed to Supply Information  
Pursuant to a Commission Subpoena

**A. False Statements and Documents**

Section 1001 of Title 18 of the United States Code provides that fines and terms of imprisonment may be imposed upon:

[W]hoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully--

- (1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact;
- (2) makes any materially false, fictitious, or fraudulent statement or representation; or
- (3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry.

Section 1519 of Title 18 of the United States Code provides that fines and terms of imprisonment may be imposed upon:

Whoever knowingly alters, destroys, mutilates, conceals, covers up, falsifies, or makes a false entry in any record, document, or tangible object with the intent to impede, obstruct, or influence the investigation or proper administration of any matter within the jurisdiction of any department or agency of the United States . . . , or in relation to or contemplation of any such matter.

**B. Testimony**

If your testimony is taken, you should be aware of the following:

1. *Record.* Your testimony will be transcribed by a reporter. If you desire to go off the record, please indicate this to the Commission employee taking your testimony, who will determine whether to grant your request. The reporter will not go off the record at your, or your counsel's, direction.
2. *Counsel.* You have the right to be accompanied, represented and advised by counsel of your choice. Your counsel may advise you before, during and after your testimony; question you briefly at the conclusion of your testimony to clarify any of the answers you give during testimony; and make summary notes during your testimony solely for your use. If you are accompanied by counsel, you may consult privately.

If you are not accompanied by counsel, please advise the Commission employee taking your testimony if, during the testimony, you desire to be accompanied, represented and advised by counsel. Your testimony will be adjourned once to afford you the opportunity to arrange to be so accompanied, represented or advised.

You may be represented by counsel who also represents other persons involved in the Commission's investigation. This multiple representation, however, presents a potential conflict of interest if one client's interests are or may be adverse to another's. If you are represented by counsel who also represents other persons involved in the investigation, the Commission will assume that you and counsel have discussed and resolved all issues concerning possible conflicts of interest. The choice of counsel, and the responsibility for that choice, is yours.

3. *Transcript Availability.* Rule 6 of the Commission's Rules Relating to Investigations, 17 CFR 203.6, states:

A person who has submitted documentary evidence or testimony in a formal investigative proceeding shall be entitled, upon written request, to procure a copy of his documentary evidence or a transcript of his testimony on payment of the appropriate fees: *Provided, however,* That in a nonpublic formal investigative proceeding the Commission may for good cause deny such request. In any event, any witness, upon proper identification, shall have the right to inspect the official transcript of the witness' own testimony.

If you wish to purchase a copy of the transcript of your testimony, the reporter will provide you with a copy of the appropriate form. Persons requested to supply information voluntarily will be allowed the rights provided by this rule.

4. *Perjury.* Section 1621 of Title 18 of the United States Code provides that fines and terms of imprisonment may be imposed upon:

Whoever--

- (1) having taken an oath before a competent tribunal, officer, or person, in any case in which a law of the United States authorizes an oath to be administered, that he will testify, declare, depose, or certify

SEC 1662 (08-16)

truly, or that any written testimony, declaration, deposition, or certificate by him subscribed, is true, willfully and contrary to such oath states or subscribes any material matter which he does not believe to be true; or

(2) in any declaration, certificate, verification, or statement under penalty of perjury as permitted under section 1746 of title 28, United States Code, willfully subscribes as true any material matter which he does not believe to be true.

5. *Fifth Amendment and Voluntary Testimony.* Information you give may be used against you in any federal, state, local or foreign administrative, civil or criminal proceeding brought by the Commission or any other agency.

You may refuse, in accordance with the rights guaranteed to you by the Fifth Amendment to the Constitution of the United States, to give any information that may tend to incriminate you.

If your testimony is not pursuant to subpoena, your appearance to testify is voluntary, you need not answer any question, and you may leave whenever you wish. Your cooperation is, however, appreciated.

6. *Formal Order Availability.* If the Commission has issued a formal order of investigation, it will be shown to you during your testimony, at your request. If you desire a copy of the formal order, please make your request in writing.

#### C. Submissions and Settlements

Rule 5(c) of the Commission's Rules on Informal and Other Procedures, 17 CFR 202.5(c), states:

Persons who become involved in . . . investigations may, on their own initiative, submit a written statement to the Commission setting forth their interests and position in regard to the subject matter of the investigation. Upon request, the staff, in its discretion, may advise such persons of the general nature of the investigation, including the indicated violations as they pertain to them, and the amount of time that may be available for preparing and submitting a statement prior to the presentation of a staff recommendation to the Commission for the commencement of an administrative or injunction proceeding. Submissions by interested persons should be forwarded to the appropriate Division Director or Regional Director with a copy to the staff members conducting the investigation and should be clearly referenced to the specific investigation to which they relate. In the event a recommendation for the commencement of an enforcement proceeding is presented by the staff, any submissions by interested persons will be forwarded to the Commission in conjunction with the staff memorandum.

The staff of the Commission routinely seeks to introduce submissions made pursuant to Rule 5(c) as evidence in Commission enforcement proceedings, when the staff deems appropriate.

Rule 5(f) of the Commission's Rules on Informal and Other Procedures, 17 CFR 202.5(f), states:

In the course of the Commission's investigations, civil lawsuits, and administrative proceedings, the staff, with appropriate authorization, may discuss with persons involved the disposition of such matters by consent, by settlement, or in some other manner. It is the policy of the Commission, however, that the disposition of any such matter may not, expressly or impliedly, extend to any criminal charges that have been, or may be, brought against any such person or any recommendation with respect thereto. Accordingly, any person involved in an enforcement matter before the Commission who consents, or agrees to consent, to any judgment or order does so solely for the purpose of resolving the claims against him in that investigative, civil, or administrative matter and not for the purpose of resolving any criminal charges that have been, or might be, brought against him. This policy reflects the fact that neither the Commission nor its staff has the authority or responsibility for instituting, conducting, settling, or otherwise disposing of criminal proceedings. That authority and responsibility are vested in the Attorney General and representatives of the Department of Justice.

#### D. Freedom of Information Act

The Freedom of Information Act, 5 U.S.C. 552 (the "FOIA"), generally provides for disclosure of information to the public. Rule 83 of the Commission's Rules on Information and Requests, 17 CFR 200.83, provides a procedure by which a person can make a written request that information submitted to the Commission not be disclosed under the FOIA. That rule states that no determination as to the validity of such a request will be made until a request for disclosure of the information under the FOIA is received. Accordingly, no response to a request that information not be disclosed under the FOIA is necessary or will be given until a request for disclosure under the FOIA is received. If you desire an acknowledgment of receipt of your written request that information not be disclosed under the FOIA, please provide a duplicate request, together with a stamped, self-addressed envelope.

**E. Authority for Solicitation of Information**

*Persons Directed to Supply Information Pursuant to Subpoena.* The authority for requiring production of information is set forth in the subpoena. Disclosure of the information to the Commission is mandatory, subject to the valid assertion of any legal right or privilege you might have.

*Persons Requested to Supply Information Voluntarily.* One or more of the following provisions authorizes the Commission to solicit the information requested: Sections 19 and/or 20 of the Securities Act of 1933; Section 21 of the Securities Exchange Act of 1934; Section 321 of the Trust Indenture Act of 1939; Section 42 of the Investment Company Act of 1940; Section 209 of the Investment Advisers Act of 1940; and 17 CFR 202.5. Disclosure of the requested information to the Commission is voluntary on your part.

**F. Effect of Not Supplying Information**

*Persons Directed to Supply Information Pursuant to Subpoena.* If you fail to comply with the subpoena, the Commission may seek a court order requiring you to do so. If such an order is obtained and you thereafter fail to supply the information, you may be subject to civil and/or criminal sanctions for contempt of court. In addition, Section 21(c) of the Securities Exchange Act of 1934, Section 42(c) of the Investment Company Act of 1940, and Section 209(c) of the Investment Advisers Act of 1940 provide that fines and terms of imprisonment may be imposed upon any person who shall, without just cause, fail or refuse to attend and testify or to answer any lawful inquiry, or to produce books, papers, correspondence, memoranda, and other records in compliance with the subpoena.

*Persons Requested to Supply Information Voluntarily.* There are no direct sanctions and thus no direct effects for failing to provide all or any part of the requested information.

**G. Principal Uses of Information**

The Commission's principal purpose in soliciting the information is to gather facts in order to determine whether any person has violated, is violating, or is about to violate any provision of the federal securities laws or rules for which the Commission has enforcement authority, such as rules of securities exchanges and the rules of the Municipal Securities Rulemaking Board. Facts developed may, however, constitute violations of other laws or rules. Information provided may be used in Commission and other agency enforcement proceedings. Unless the Commission or its staff explicitly agrees to the contrary in writing, you should not assume that the Commission or its staff acquiesces in, accedes to, or concurs or agrees with, any position, condition, request, reservation of right, understanding, or any other statement that purports, or may be deemed, to be or to reflect a limitation upon the Commission's receipt, use, disposition, transfer, or retention, in accordance with applicable law, of information provided.

**H. Routine Uses of Information**

The Commission often makes its files available to other governmental agencies, particularly United States Attorneys and state prosecutors. There is a likelihood that information supplied by you will be made available to such agencies where appropriate. Whether or not the Commission makes its files available to other governmental agencies is, in general, a confidential matter between the Commission and such other governmental agencies.

Set forth below is a list of the routine uses which may be made of the information furnished.

1. To appropriate agencies, entities, and persons when (a) it is suspected or confirmed that the security or confidentiality of information in the system of records has been compromised; (b) the SEC has determined that, as a result of the suspected or confirmed compromise, there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the SEC or another agency or entity) that rely upon the compromised information; and (c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the SEC's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.
2. To other federal, state, local, or foreign law enforcement agencies; securities self-regulatory organizations; and foreign financial regulatory authorities to assist in or coordinate regulatory or law enforcement activities with the SEC.
3. To national securities exchanges and national securities associations that are registered with the SEC, the Municipal Securities Rulemaking Board; the Securities Investor Protection Corporation; the Public Company Accounting Oversight Board; the federal banking authorities, including, but not limited to, the Board of Governors of the Federal Reserve System, the Comptroller of the Currency, and the Federal Deposit Insurance Corporation; state securities regulatory agencies or organizations; or regulatory authorities of a foreign government in connection with their regulatory or enforcement responsibilities.
4. By SEC personnel for purposes of investigating possible violations of, or to conduct investigations authorized by, the federal securities laws.
5. In any proceeding where the federal securities laws are in issue or in which the Commission, or past or present members of its staff, is a party or otherwise involved in an official capacity.