

THE BITFURY GROUP ANNOUNCES LAUNCH OF *EXONUM*

EXCLUSIVE OPEN SOURCE ENTERPRISE- GRADE BLOCKCHAIN FRAMEWORK *Your Next Step To Blockchain Is Here*

AMSTERDAM, The Netherlands – July 17, 2017 – The Bitfury Group, the world’s leading full service Blockchain technology company, announced today the launch of its open source Enterprise-Grade Blockchain framework, Exonum.

Exonum is *your* next step to Blockchain. Exonum is the software framework that will help businesses and governments securely and easily bring their Blockchain ideas and solutions to life.

“We have seen interest and enthusiasm for Blockchain solutions grow every day as businesses, governments and institutions look for the easiest and most secure way to take their next step. Exonum is the next step to Blockchain, offering robust and unparalleled Blockchain capabilities for asset management and security,” said Valery Vavilov, CEO of The Bitfury Group. *“We have spent almost two years working to create our Exonum Blockchain platform, deeply analyzing and modeling different Blockchain concepts. Exonum is the direct result of extensive research and testing by our elite team of best-in-class mathematicians, scientists, developers and analysts coming together to create this inimitable platform. Respecting the open and collaborative nature of the Blockchain and Bitcoin communities, we elected to make this software available to anyone developing Blockchain-based applications, helping more organizations, governments and businesses benefit from the incredible potential of Blockchain.”*

The source code for Exonum can be accessed through the product’s official [website](#) and on Github. Developers are free to incorporate, adapt and extend the Exonum source code according to their needs.

EXONUM ROADSHOW

Bitfury first exhibited Exonum at RustFest 2017, where they led a workshop guiding developers through a tutorial on how to create their own cryptocurrencies and demonstrated how Exonum can act as a framework for developing Blockchain-based applications.

Bitfury will showcase Exonum to the wider IT community in a global roadshow, including webinars and events, set to begin July 17. For more information on Exonum and the roadshow events, view the Exonum website [here](#). Roadshow highlights include but are not limited to:

- Amsterdam, Netherlands
- London, UK
- Berlin, Germany
- Washington, D.C.
- Moscow, Russia
- San Francisco, California
- Boston, Massachusetts
- Austin, Texas
- Astana, Kazakhstan
- Beijing, China
- Kiev, Ukraine

ABOUT EXONUM

Blockchain is revolutionizing the way we manage, move and secure data and assets.

Exonum is *your* next step to Blockchain.

Exonum is custom designed to securely and easily allow you, your company or your government to build a Blockchain system that solves your challenges and enjoys the unmatched security of the Bitcoin Blockchain, while also offering the technology's most attractive features like transparency and smart contracts.

EXONUM OFFERS AUTHENTIC BLOCKCHAIN DESIGN

Many solutions exist for businesses to create a distributed ledger, or use distributed ledger technology, called DLT. DLT, while a marked improvement from current systems, bears a near-identical resemblance to a distributed database. A distributed database does not have the same benefits or security of a true Blockchain. In a distributed ledger, the history of the ledger can be rewritten if the nodes or actors collude to do so; further, there's no way to automatically audit the system for a client, as the system operates just like a database.

Exonum is your solution to building an authentic and functional Blockchain. Your Exonum Blockchain offers all the benefits of a true Blockchain, **including auditability, transparency, and unparalleled security.**

EXONUM IS READY TO USE

It has never been easier to build and use a Blockchain-based solution using Exonum. We have open-sourced not only the entire library of code, but the client-side software you can use to manage your Blockchain as well. Your Exonum Blockchain can utilize a JavaScript lightweight client that allows you to connect to full nodes, request data, send transaction requests and, most importantly, verify cryptographic proofs from anywhere in the world on nearly any device. This lightweight client offers access to a constant audit trail of your Blockchain.

EXONUM OFFERS EXCEPTIONAL SECURITY

Strong Consensus Algorithm

Exonum uses a custom-built Byzantine consensus algorithm that keeps your data safe without needing to “mine” blocks, even in the case of a situation where your nodes malfunction or become susceptible to the actions of bad actors. This feature also makes it near impossible for a bad actor to add incorrect data or change the history in your Exonum Blockchain. In the case of many compromised nodes, your Exonum Blockchain still maintains its fundamental security properties, protecting your data. Your Exonum Blockchain also updates immediately with the addition of every new block. This consensus algorithm also allows your Exonum Blockchain to handle up to 3,000 transactions per second (within a global, distributed network) with a clearing latency of 2.5 seconds, and can handle up to 15,000 transactions per second in custom cases.

Anchored to Bitcoin

Unanchored private Blockchains are susceptible to hacks given their smaller network, but your Exonum Blockchain enhances security by relying on strong, cryptographically proven systems. Your Exonum Blockchain benefits from the security of bitcoin by anchoring to the safe Bitcoin Blockchain. Anchoring is the process of saving a “snapshot” of a system state to a public source, removing the need to trust the administrator of your Blockchain unconditionally, while keeping sensitive data private. The anchoring service periodically saves a cryptographic hash reflecting the state of your Exonum Blockchain to the Bitcoin Blockchain. Even if a bad actor were to infiltrate a majority of your nodes, any changes to your Exonum Blockchain would be recorded and immediately noticeable.

Secure Programming Language

Exonum is based on Rust, the most secure programming language to date. Rust is a systems programming language designed to be safe, concurrent and practical. It is similar to C++, with emphasis given to thorough memory management which protects against many common errors in programming. Rust is currently faster than Java, Go, C and C++ programming languages and continues to improve.

EXONUM DELIVERS SMART CONTRACT EFFICIENCY

Exonum’s smart contracts are the best option for enterprise-level needs. Just like other smart-contract platforms, like Ethereum and Fabric, Exonum-based smart contracts represent business

logic that can capably add to a Blockchain immediately. Exonum-based smart contracts also have the highest performance in terms of transaction processing, able to handle up to 3,000 transactions per second with an unprecedented 2.5 seconds of clearing time and up to 15,000 transactions per second in custom situations.

EXONUM IS ALREADY CHANGING THE WORLD

Bitfury is already using Exonum in some of its pilot projects for governments, and presented a version of Exonum during its award-winning pitch for the EY Startup Challenge. Exonum can be used for many sectors and projects; it can be used to certify results of polls or elections, secure digital rights for content creators, create efficient and secure registry systems and more.

About The Bitfury Group:

The Bitfury Group is the leading full service Blockchain technology company and one of the largest private infrastructure providers in the Blockchain ecosystem. The Bitfury Group develops and delivers both the software and the hardware solutions necessary for businesses, governments, organizations and individuals to securely move an asset across the Blockchain. The expertise of The Bitfury Group ensures successful, easy, fast, secure and cost-effective connectivity to the Blockchain. The Bitfury Group is a global team of experts in technology, business, communications, security and civil society. The Bitfury Group believes the Blockchain can and will open new doors for global economic opportunity and prosperity, and its mission is to create and advance Blockchain applications that will further promote innovation and the advancement of the peer-to-peer economy.

FOR MORE INFORMATION, CONTACT:

Rachel Pipan

Rachel.Pipan@bitfury.com