Virtually every device we own has an access to the internet. Gadgets, wearables and systems are becoming smarter, more connected and autonomous. They are now able to request a service or start an action without human intervention.

To perform tasks, connected devices need to communicate and synchronize with each other. But, the devices are deployed in different ways and no single networking technology fits them all.

The bigger the system of connected things gets, the more traffic it generates, bringing bottleneck in its security, efficiency and overall performance. However, security has never been a high priority for connected devices – until now.

The basic assumption of server-client approach prevailing today is that a person must serve as the universal endpoint. This is unsustainable. Heading towards the internet of things mass adoption, a need for alternative approach is paving the way.

The next generation of secure internet of things devices will be powered by blockchain.
THE WHY
REASONS FOR ENTERPRISE INTERNET OF THINGS NETWORK ON BLOCKCHAIN

To fully leverage the potential of internet of things, it is time to change the way we produce devices – with security built-in.

Today, we exchange information via open ports, relying heavily on the server infrastructure and out-dated security systems.

All this is leading to a worrying combination of commercial dependency on enormous volumes of data being centralized.

THE WHAT
VALUE PROPOSITION FOR ENTERPRISE INTERNET OF THINGS NETWORK ON BLOCKCHAIN

Nxttech is permission-based, meaning the participation in the network requires an invitation.

The consensus is achieved through authority endorsements. That is why only participants with the appropriate access can verify the transactions.

INTEROPERABILITY
FULL PERMISSION MANAGEMENT
AUTOMATION OF BUSINESS LOGIC
NO LOGIN
NO SINGLE POINT OF FAILURE
PAYMENT SUPPORT

CONNECTIVITY
DATA PRIVACY
DECENTRALIZED STORAGE
STANDARDIZATION
TRACKING & MONITORING
**DATA INTEGRITY**

The records are secured by validated signature. Public keys are stored on Nxxtech ledger, and private keys are saved on an individual device. If a record is altered, the signature becomes invalid.

**IDENTITY VERIFICATION**

Nxxtech uses identity to confirm membership and access privileges, so that the participants in the network know exactly who they are dealing with. Every device connected is authenticated and certified.

**ACCESS MANAGEMENT**

Organization can control, manage and configure a private network of connected devices that are mutually authenticated and verified.

**SECURITY BUILT-IN**

Nxxtech acts as a firewall, securing all communication exchanged. Every device can be considered an autonomous node. Each access attempt is verified automatically, without the need for user confirmation.

**DEVICES AUTONOMY**

Blockchain mechanisms secure wireless communication of connected devices in a lightweight and scalable manner.

**IDENTITY VERIFICATION**

Nxxtech uses identity to confirm membership and access privileges, so that the participants in the network know exactly who they are dealing with. Every device connected is authenticated and certified.

**THE HOW**

**SELF-SOVEREIGN IDENTITY ON BLOCKCHAIN**

Identity is essential to trust and security. Self-sovereign identity (SSI) on blockchain gives users more control over their data, and businesses less worry about managing it.

Nxxtech offers developers and manufacturers an embedded solution to secure devices with self-sovereign based identity.

To communicate and execute orders in the Nxxtech blockchain-based internet of things network, each device needs to present itself. In other words, an organization can switch any device from an untrusted to a trusted state, and vice versa.

Today, each interaction on the Internet demands a fragment of users’ actual identity. But, every organization or platform service uses different system to control and manage personal data. This is difficult to manage and maintain.

Self-sovereign identity enables that communication and transactions on the web don't rely on third-party providers but rather on a protocol where parties can interact in a trusted and secure way.
In today’s digital economy, the threat of disruption is ever-present. What blockchain and internet of things have in common is the assurance for effective use of data from the ground-up with all lines of business, directly impacting on cost-reduction, convenience and choice the customers crave.

Combining blockchain and internet of things could be the key to ensure these promises are kept, while minimizing the security and business risks that go hand-in-hand with technological change.

ABOUT US

Nxxtech is on a mission to transform the internet of things into a network of interconnected devices which can interact without human intervention. We’re creating a real-world architecture that breaks the technical barriers and empowers organizations to move forward with digital innovation. This way, the users or devices within a trusted network can communicate and transfer value and messages completely independently of the servers and centralized systems that prevail today.

We are looking forward to become your trusted business partner.

REACH US AT INFO@NXXTECH.COM