AFFIDATY®

BLOCKCHAIN TECHNOLOGY PROVIDER

affidaty.io

Be Inspired

ABOUT THE COMPANY

Our challenge started off in the spring of 2016, when we set out to create a technology that could overcome the significant obstacles preventing the achievement of fast and sustainable operational times while still retaining the inherent security of that which is blockchain technology.

> Years of research and development have led to T.R.I.N.C.I.® 2.0, a state-of-the-art, carefully designed blockchain technology in-between private and public systems.

GOALS

Base technology in blockchain applications is often hindered by a lack of sustainability, speed or compliance with business regulations.

T.R.I.N.C.I. 2.0
Powered by Affidaty S.p.A.

Running in a decentralized and distributed system called Independent Chain, T.R.I.N.C.I.® offers a high-quality, yet cost effective, solution to the market.

Having been open-source since September 30th, 2021, T.R.I.N.C.I.® stands out as a technology designed to meet any business needs as it provides a wide range of actors with various benefits among which: efficiency, sustainability and scalability, as well as compliance with European standards concerning data protection and governance.

The crypto market value has by now passed $2 trillion

but blockchain architects still struggle to bring companies in: out of 300 million users, only 18 thousand companies are able to enter this market.

Server-to-server services and cutting-edge smart contracts are very few

Both the S2S services and the smart contracts often cannot adequately interact with each other or with the user, therefore hindering the access to a legal, simple, secure and powerful blockchain ecosystem for companies and individuals

This excluded, this market would be widely available, and anyone could benefit from its countless day-to-day applications.

Today, through the T.R.I.N.C.I.® 2.0 technology, we developed **an easy-to-use ecosystem and high value-added services**.

A few examples of the services and products we have to offer are: the exchange platform; the pay component; escrow services; NFTs; programmable coins; systems for document validation and voting and a sovereign digital identity system (even for IoT devices and multiple actors).

T-2.0

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PROBLEMS
Infrastructure

Development, management and mining require high costs.

... And investing in infrastructure is often underestimated.

Designing, developing, distributing, migrating, maintaining and updating - but also third-party tools, physical hardwares and dedicated staff: these are only some of the costs that must be accounted for when building a cutting-edge and effective blockchain infrastructure that users can trust.

Indeed, it is important to highlight that a blockchain can fit into four different categories of complexity:

Low

- basic applications for smart contract development;
- payment applications built on existing cryptocurrencies;

Medium

- semi-decentralized applications;
- blockchain-based applications (e.g. Ethereum,Hyperledger Fabric/Sawtooth, EOS);

High

- full decentralized network;
- new coding languages suitable for complex problem-solving;

For a long time, Affidaty has been working on building a **complex ecosystem from scratch.**

Very few actors have dared delving into building a high-complexity blockchain ecosystem from scratch.

A focus on infrastructure has not only allowed Affidaty to build **consensus, network, nodes, and scoped systems**, but it has also led to a reduction in costs and emissions for the sake of both the user and the environment.

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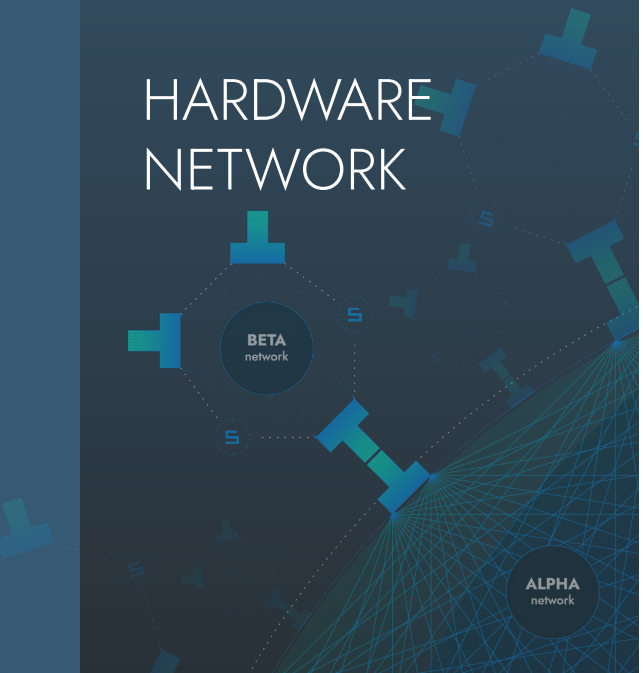
HARDWARE NETWORK



T.R.I.N.C.I.® 2.0 is backed by Independent Chain, a network composed of distributed, decentralized, certified and high-efficiency nodes relying on 4 different structures: Network Alpha / Network Beta / Network Gamma / Network Omega.

The different configurations combine the alignment to current regulations in force with the ability to securely support any business project or infrastructure.

This distributed network prevents any user privilege escalation or takeover, therefore excluding that information can get controlled, modified or erased. In this way, nobody can ever alter the protocol underlying the functioning of the base technology.

What's more, everybody can become an Independent Chain miner and actively participate in certifying new written transactions in T.R.I.N.C.I. 2.0.

Alpha Network

A higher certifying network composed of trusted validator nodes, it acts as a guarantee about code, hardware, public protocol housing and investors' earning power.

Beta Network

Users are free to choose the consensus model as they see fit and as required by the needs of their project.

Gamma public Network

Conceived as a tribute to bitcoin, this network's consensus relies on a Proof of Work protocol. It mimics same dynamics and algorithms as those of bitcoin, but it is built on T.R.I.N.C.I.'s core.

Omega Testnet Network

By means of this test network, users can verify the adequate functioning of their application.

Common issues with current blockchains

Frequent challenges faced by existing blockchains can be summed up as follows:

- Excessive energy consumption to the detriment of the environment (high computation power is required for electricity generation, cooling etc.)
- Scalability (immutability of smart contracts makes them hardly adaptable to possible changes in initial needs);
- Inefficiency (waste of the resources needed to use networks);
- Interoperability;
- Compliance with national and international regulations (common blockchains refuse to conform to current legislation, instead they wait for the latter to change in their favor);
- Security (hacking incidents are more frequent when private executive keys are entrusted to outsourced software houses);
- Privacy;
- Potential for application to B2B models;

Overcoming these challenges with T.R.I.N.C.I.® 2.0's core

"Nothing is crazier than doing the same thing all over again and expect a different outcome"
This motto in mind, Affidaty has built an open-sourced, scalable, safe, performing, extensible **core** from scratch using the most advanced technology solutions.

Open-Source

An AGPL-licensed blockchain, T.R.I.N.C.I. fully adjusts to the most rigid standards and requirements of the open-source field.

Scalable

Scalability allows to achieve different business purposes. For hardware and software can be sized by increasing/decreasing the number of nodes and through smart contracts, the core can be programmed to process large numbers of low-cost transactions (IoT-oriented) and even handle sophisticated data associated with adequate transaction costs (NFT-oriented).

Safe

Depending on the High Density Scoped Blockchain's purpose, it can be extended through smart contracts containing arbitrary consensus algorithms (such as PoW PoS and PoA, each with its own byzantine fault tolerance property).
A dedicated module makes it possible to accept transactions carrying new consensus algorithms according to established rules governing the HDSB's long-term survival.

Performing

T.R.I.N.C.I.'s core is written in Rust, a low-level programming language. In addition to enabling server- and client-side interoperability, the fact that smart contracts are written in WebAssembly allows developers to write code in more familiar and common languages.

Extensible

It relies on a 'wasm-machine' engine which enables it to execute written smart contracts implemented in WebAssembly by third parties.
This guarantees the updates and the functionalities needed for the evolution and durability of this technology.

What Affidaty has to offer

DIGITAL IDENTITY

No intermediaries to hack. The digital identity system 4rya allows users to identify themselves on the blockchain through the production of executive public or private keys, both online and offline. With these keys, users can approve transactions anonymously.

www.4rya.io

CERTIFICATION AND TRACEABILITY

Easily integrable with the most advanced automatic reading or scanning systems, this product provides with a certified history of every step of the process that must be accounted for.

www.affidaty.io/trust8/

VOTING

Anonymity of choices is guaranteed along with the highest inviolability and transparency of the same: the cryptographic separation of the identity/vote association rules out possible mistakes stemming from double voting.

www.affidaty.io/faretrasmart-contracts/vot8/

CRONO TIME STAMP

Shared across the blockchain nodes, this tool offers a discrete, common time measure to all of the network participants. By doing so, it is possible to establish a precise and accurate time frame for information validation.

SYNKRONY
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SYNKRONY®

In the form of a defi, all-in-one architecture, Synkrony® is a network developed by Affidaty S.p.A offering consumer and business exchange services, along with listing, digital banking and pay component services so as to allow companies to manage their activities in crypto or tokens.

https://www.synkrony.io

EcoToken

CUSTOM COINS

Customizable digital assets combining Euro's ease of use with the intelligence of a virtual currency and with all of their exchange rules.

BLOCKCHAIN hdemy

HDEMY

E-learning platform. Specifically designed for outreach and training activities to be availed by the whole community of system integrators, developers, partner, customers and providers interacting with the ecosystem.

https://www.hdemy.io

NFT

NFT

Non-fungible tokens that can be created, sold and purchased in FIAT currency (EUR, GBP or USD).

SYNKRONY

Exchange Services

Synkrony® Exchange is a trading platform for buying and exchanging cryptocurrencies. Access classic wallet provider and trading services, and manage your crypto - included virtual assets created with T.R.I.N.C.I.® - in FIAT currency.

Pay Component Services

Synkrony® Pay is a decentralized payment system for securely managing your collection of FIAT and cryptocurrencies.

Listing Services

With Synkrony®, companies that are looking to tokenize their business can rely on high value-added services to create, list or trade tokens, stable coins and NFTs.

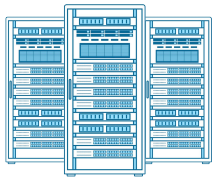
www.synkrony.io

PRODUCTS

Every product developed by Affidaty S.p.A has been designed to be extremely performing, so as to meet the standards required by both T.R.I.N.C.I.® blockchain and Independent Chain.

INDEPENDENT CHAIN'S FITLET

Independent chain's hardware node is specifically designed for creating and developing T.R.I.N.C.I.-based public and private networks. Each node ensures the highest efficiency in terms of energy and performance so that any project can be carried out effectively.



RACK FOR PROPRIETARY HDSBs

Intended for certified data centers, this node rack offers guaranteed computing power to Independent Chain's network Alpha.

COLD WALLETS

Physical, tangible devices, cold wallets provide an additional way of protecting and storing the user's private keys or cryptocurrencies.

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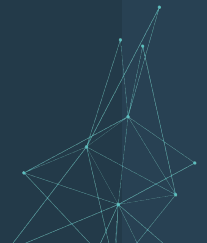
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