

Product Data Sheet

Catenis a Technology by Blockchain of Things, Inc. The second-Layer Technology for Building New Applications or Integrating Existing Enterprise Applications with the Global Bitcoin Blockchain

Catenis® provides interface services for a new class of solutions built using the premier blockchain technology, the Bitcoin blockchain. Catenis supports cross-platform integration and the rapid enablement of secure peer messages, immutable content logging, smart contracts, and the creation and transmission of fungible and non-fungible tokens (NFTs). This technology allows your enterprise to quickly build/integrate applications with the Bitcoin blockchain. Even better, with low-code tools, this can all be achieved without hiring a team of engineers, reducing costs and time to market versus all other existing technologies.

Catenis' second-layer technology coupled with the Bitcoin blockchain provides **real-time transaction speeds** while reducing **transaction costs to cents**.

Executive Overview

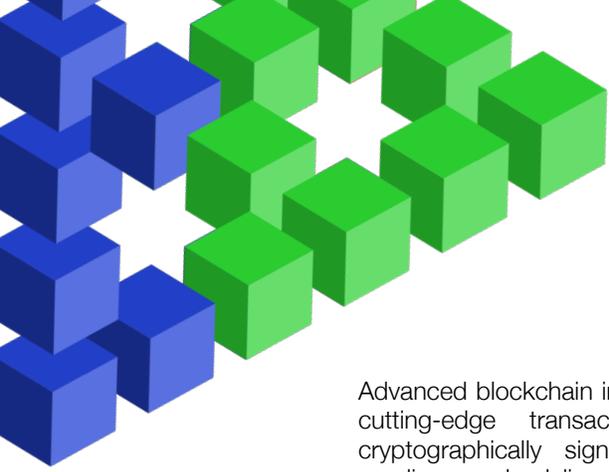
Catenis provides military-grade encrypted messaging and simplifies blockchain integration for businesses and consumer applications, systems, and devices. This innovative technology allows systems and processes to communicate in a decentralized peer-to-peer way while assuring that the intended recipient is the only one who can access the data. Governance is inherent through blockchain immutable inscription of messages that perfectly track the chain of custody across all assets. Blockchain integration no longer requires specialized developers and cryptographers to spend years learning how to leverage a patchwork of disjointed libraries and technologies to build on a costly, unproven blockchain.

Regardless of the development languages and platforms already in use, Catenis brings together applications, systems, devices, and processes so that developers across your entire organization have the integrated tools to get the job done. Our blockchain tokenization, messaging, and logging technology bridges what was once seemingly impossible diverse protocols bringing together

incompatible systems. Whether these systems live on a small campus network or are located across the planet, thousands of miles apart from each other, Catenis is the solution.

Catenis' ability to anchor information of any kind or size to an immutable ledger enables provenance for digital and physical products, providing proof of life and origin while correlating every item to a traceable digital record, creating an auditable trail. Manufacturers, distributors, and suppliers can allow their customers to verify authenticity, reducing fraud and counterfeiting across consumer and industrial goods while efficiently implementing supply chain tracking.

Smart contracts run autonomously at the speed of the end-points processor, with no latency, written and compiled in any language, and with no visibility into your intellectual property source code. Catenis includes technologies to secure all content during transmission and when logging by using data encryption and built-in Public Key Infrastructure (PKI) management. Ongoing costs of securing and managing keys are no longer a concern.



Advanced blockchain inscribing technology and a cutting-edge transaction assertion platform cryptographically signs and verifies message sending and delivery while providing “read confirmation” assurance. All transmitted data is blockchain logged upon sending and delivery, providing unprecedented end-to-end cryptographic auditable assurances.

This robust second-layer transport **delivers content across Bitcoin’s peer network instantly**, reducing **transaction fees to cents**, and abstracts away the need for custody and the use of Bitcoin. Catenis provides a ZERO liability custody solution, so customers never need to buy, secure, or maintain any cryptocurrency, wallets, or difficult to protect private keys.

Catenis delivers a prebuilt administrative user interface, open standard APIs, low-code tools to speed development, and unique performance technologies that allow your solutions to scale to millions of users and devices. The platform is easy to use for developers and non-developers alike, allowing your team to view application and system messages, gather system information, and enable or disable communications between systems across your enterprise. Catenis’ permission layer allows customers to limit communication between designated applications within or beyond the scope of your enterprise.

Challenges with Present Offerings:

Organizations attempting to deploy solutions to leverage new or existing unproven blockchain or Distributed Ledger Systems (DLTs) face numerous challenges. Firstly, the available technologies don’t use a world-class, proven, cryptographic blockchain to secure endpoints, issue tokens, track enterprise assets or provide encrypted peer communication. Many of the solutions designed for organizations fail to deliver due to their reliance on unproven blockchains or ledgers whose offerings are better accomplished using traditional databases. Attempting to build or enhance existing systems to streamline business processes with such options causes IT and management confusion and, ultimately, significant unnecessary

expenditure. They also come to the realization that these systems lack a global footprint, don’t provide independent auditing mechanisms, reduce trust, lack inherent blockchain fault tolerance, incur ongoing blockchain maintenance costs, fail to deliver cohesive integration tools, and create massive security gaps.

The Solution:

With Catenis, your organization can implement enhanced capabilities to reduce cost and increase revenue in many ways with embedded military-grade security. This newest generation of blockchain integration leverages the most mature blockchain with a global footprint reducing friction and barriers. This technology supports rapid development via low-code tools to integrate current systems and platforms, achieved with instant real-time transaction speed, cost-efficient scalability, all while occurring on the most mature, incredibly secure, and proven reliable blockchain, the Bitcoin blockchain.

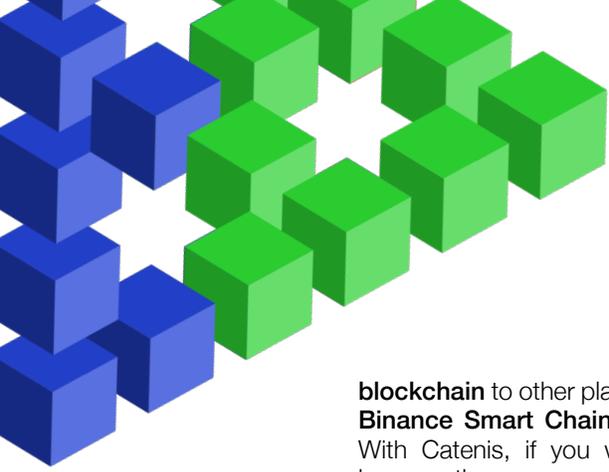
Key Product Features

Catenis provides all of the capabilities you need to create and deploy blockchain-enhanced solutions inside and beyond your enterprise.

Smart-Assets (Tokens) provide the ability to generate Fungible and non-fungible tokens (NFTs), which allow for fractionalizing real property, creating digital art, fashion, songs, movies, etc., coupled with the ability to permission across applications, assets can now be used to enable Hardware as a Service (HaaS). Metered units powering hardware devices and industrial products, enabling time-based usage that can ensure continued revenue and deduced disputes.

Transmission with Logging Capabilities allows for remittable content (documents, contracts, invoices, movies, songs, etc.) globally while inscribing transmission timestamp for any governance-controlled and traceable solutions.

Multi-Token Asset Conversion with No Lock-in allows seamless transfers of Smart Assets (tokens) from the Catenis Platform on the **Bitcoin**



blockchain to other platforms, such as **Ethereum**, **Binance Smart Chain**, or **Polygon PoS Chain**. With Catenis, if you want to issue assets and leverage them across multiple pools and protocols, the flexibility is yours. Even bring them back to Catenis at a later stage.

Low-Code Tools with Catenis Flow's drag-and-drop powerful application assembly capabilities are now at your fingertips, allowing for faster prototyping, rapid integration, quicker testing, and reduced time to market. Catenis makes your blockchain integration projects a snap! For more information on Catenis Flow, [click here](#).

Plugins for WordPress with Catenis API Client the power of the world's most popular Content Management Systems (CMS) is now easily coupled with the Bitcoin blockchain. The Catenis API Client for WordPress allows anyone to write client-side JavaScript and seamlessly connect to the Bitcoin blockchain. For more information on the Catenis API Client, [click here](#).

Prebuilt Apps on WordPress with Catenis Blocks ushers in unprecedented capability, provides connectivity to the Bitcoin blockchain with prebuilt Gutenberg Blocks. Assemble your app(s) with existing prebuilt blocks and achieve Bitcoin blockchain integration using ten different Catenis powered blocks. For more information on the Catenis Blocks, [click here](#).

Administrative Web Portal delivers a unified view of all peer-enabled applications, with capabilities to centrally enable and disable any globally decentralized connected application. Attach proof-of-origin, linking applications that log or send logged blockchain content to the manufacturer's/owner's domain record(s) and legal contacts to prove administrative authority over logged provenance. Review application usage reports per connectivity bases of both on-chain and off-chain messages.

Performance and Stability orchestrated by the most advanced blockchain and integration engine supporting calls to globally remote end-points applications and devices, allowing you to deploy

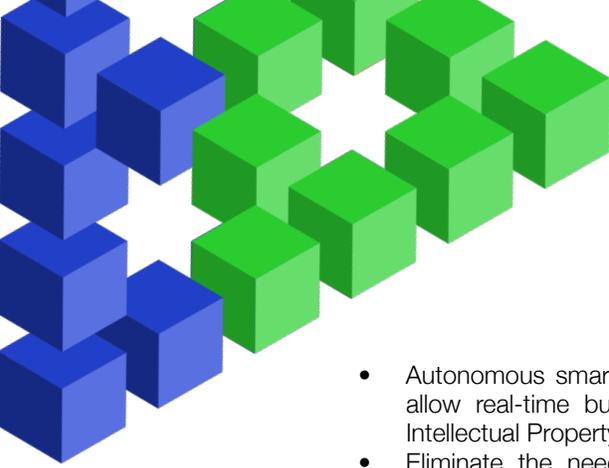
and manage tens of millions of endpoints.

Security Permission Broker unleashes advanced permission technology, ensuring that only authorized applications or devices will accept messages from other trusted peer senders. Application/device level permissions can even be configured, allowing applications or systems in your enterprise to speak to peer applications/devices owned and managed by downstream partners.

Cross-Platform Support for building by using any programming language on any platform; embedded low-level languages like C, Java, NET, RUST or JavaScript platforms such as Node.js.

Product Benefits

- Blockchain logging unlimited amounts of data in any format or size, providing immutable traceability
- Issue assets (tokens) and convert them to other popular token protocols, providing flexibility and eliminating protocol lock-in
- Send content peer-to-peer across all applications, eliminating all central points of failure
- Easily integrate with WordPress, delivering the ability to leverage the world's most popular CMS
- Fast access to blockchain capabilities without the need to hire cryptographic engineers or overpriced computer scientists
- Notification services layer, surfacing all critical information in real-time, as needed
- Integrate with all software applications and Industrial systems, bridging heterogeneous platforms
- Provides low-code rapid development tools, improving productivity
- Reduce complexity and time to market, lowering costs
- Eliminate the need to purchase, handle, or maintain any cryptocurrencies or wallets, removing costly custodial solutions
- Eliminate the need to install or have an IT staff maintain costly blockchains, requiring zero ongoing labor costs



- Autonomous smart contracts on end-points, allow real-time business agility and protect Intellectual Property
- Eliminate the need to maintain Public Key Infrastructure (PKI) artifacts such as keys and certs, reducing infrastructure complexity
- Intuitive, integrated standards-based API layer reduces developers training costs

Increase Security

- Leverage the world's most robust, tried, and tested infrastructure that protects billions of dollars in assets
- Permission all blockchain-enabled applications restricting communication and access on a public blockchain to only whitelisted applications
- End-to-End Encryption of messages, no matter how large or small, while providing military-grade security effortlessly
- Ensure every message is automatically cryptographically signed by the device of origin and eliminate attack vectors
- Automatically signed and cryptographically logged "read confirmation" once the target application reads the message(s)
- Provide governance and traceability of every message's date and time stamp on the immutable ledger

Improve Processes

- Bring together a cross-platform engineering team, working on a common goal to integrate existing applications with the Bitcoin blockchain
- Deliver secure command and control messages and target device or device group lists with specific events or command messages
- Permit only designated applications, devices, or systems to log, send or receive message content and act on functionality
- Flexible standard-based web services integration allows you to respond to changing business needs

About Blockchain of Things, Inc (BCoT)

Formed in 2015, Blockchain of Things, Inc. has become a leader in Bitcoin blockchain integration technology. Their premier product Catenis® provides second layer, low-code rapid development tools, that reduces cost, complexity, and time to market. Enabling easy integration with the Bitcoin blockchain, simplifying encrypted peer-to-peer messaging, token issuance, immutable data recording, and tracking. The company headquarters is in New York City, USA.

Smart Properties control ownership of real-world physical and digital assets across the blockchain whose conditions/ownership can be modified autonomously via smart contracts. A new breed and class of functionality emerge, reducing fraud, mediation fees and allows such items to be traded with radically less trust. Enabling smart properties on goods delivers to your organization decreased costs and increased revenue opportunities.



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