

DLT technology from DataTrails enables modification of data blocks without compromising transparency or integrity

DataTrails gains patent for new data block modification technology that eliminates major limitation in blockchain and paves the way to new applications

SANTA CLARA, CA, UNITED STATES, February 11, 2025 /EINPresswire.com/ -- DataTrails, a global leader in Distributed Ledger Technology (DLT), has announced today a revolutionary solution that allows DLT data to be securely modified without undermining the integrity of the whole chain.

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*Rusty Cumpston (CEO,
DataTrails)*

This development marks a major industry breakthrough by addressing a critical limitation of blockchain technology and opening the door to a host of new provenance authentication applications, where redaction and changes to provenance metadata are occasionally needed.

Gaining the patent for this innovative DLT improvement represents further proof of DataTrails' thought and technology leadership in the transparency technology arena.

The innovative system resolves a long-standing problem with existing DLT and blockchain technology that has held back its adoption in enterprises - how to reconcile the need for immutability with the practical requirements of data privacy and regulations. While traditional blockchain systems provide little to no flexibility when changes are needed, this innovation by DataTrails enables modifications such as GDPR redactions, while also ensuring the rest of the data remains trustworthy, transparent, and secure.

“This new patented technology is a testament to our commitment to solving real-world challenges with DLT technology,” said Rusty Cumpston, CEO of DataTrails. “The ability to make secure modifications represents a significant advantage over current blockchain technology, expanding its utility, enabling industries to address real-world challenges while retaining the technology's unique benefits. Being able to modify data blocks without compromising long term integrity is a critical step forward for industries that demand both data reliability and

adaptability.”

Blockchain technology has long been lauded for its immutability, a feature that ensures transparency, trust and security. However, this immutability also poses a problem in real-world scenarios where updates to the data is required. Industries that must adhere to stringent regulations, such as GDPR in Europe, the CCPA in California and other evolving regulatory requirements, struggle with blockchain’s rigidity when modifications are necessary to address privacy concerns, correct errors or comply with legal mandates. DataTrails’ new system resolves this by allowing controlled and auditable modifications to blockchain data, while preserving its foundational principles.



Rusty Cumpston (CEO, DataTrails)

Jon Geater, patent co-author and DataTrails’ Chief Product Officer, explained the significance of this breakthrough. “This system provides a framework for DLT-based systems to evolve beyond their original constraints. It ensures modifications can only be made within the same secure and distributed system, preserving trust and transparency while enabling flexibility. By clearly marking changes and maintaining an audit trail, we’ve created a solution that upholds our core values of transparency and security, while also allowing for necessary data management.”

The patented system employs a unique process that allows modifications to blockchain data to be securely validated and logged. Instead of overwriting or deleting data, modifications are recorded as new entries, linked to the original data for traceability.

Each modification undergoes the same consensus mechanism as any other transaction on the blockchain, ensuring it is both authorised and transparent. This design avoids the need for disruptive solutions like forks, or earlier privacy innovations that hide the fact that data was changed.

The innovation from DataTrails enables organisations that rely on immutable data, such as high tech automotive, AI call centers, supply chain operators and financial services, to correct errors without disrupting their essential audit trails. It ensures that any application that handles PII has the ability to securely amend data to comply with privacy laws, while also maintaining transparency, traceability and trust in the data. It will also help restore trust in digital media content by allowing edits and modifications, while still ensuring that fake or altered data can’t be

represented as the original.

DataTrails was officially granted the patent on December 24, 2024. This innovation further positions DataTrails as a leader in blockchain evolution and paves the way for broader adoption across sectors that require both adaptability and integrity in their data systems.

“This innovation further demonstrates DataTrails’ unwavering dedication and meticulous approach to the responsible handling and authenticating of personal data such as PII,” said Thomas McCarthy-Howe, CTO of leading tech-enabled call-center company Strolid. “Striking the right balance between transparency, trust, privacy, and regulatory compliance in the complex world of cryptography is no small feat—yet DataTrails has once again risen to the challenge. This is precisely why we trust DataTrails as our transparency partner as we build the AI infrastructure for real time communications.”

For more information, visit www.datatrails.ai

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About DataTrails - www.DataTrails.ai

DataTrails gives creators and businesses long-term confidence in digital files and documents by maintaining a tamper-proof record of who did what and when, no matter where the files are stored or how they move around. Underpinned by openly verifiable ledger technology, the provenance record created in the DataTrails secure cloud platform provides an immutable audit trail that vastly improves the speed and reduces the costs of verification. Whether validating documents in real-time or looking for simpler, better ways to meet audit requirements, DataTrails delivers the integrity, transparency, and accountability required in today’s fast-paced digital-first world.

DataTrails’ transparency technology, Forestrie, radically simplifies distribution and verification of the cryptographic proofs that underpin all DataTrails provenance data. It enables the greater speed and scale needed to keep up with the rapidly growing demands of the responsible AI movement.

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