

Technica Corporation is collaborating with its technology partner ALTR to offer the only fully commercialized solution that utilizes Distributed Ledger Technology (DLT) to provide an unparalleled level of security, monitoring, visibility, and response capability against malicious user activity on all major database technologies. This U.S.-developed, U.S.-patented technology emerged from a vision that the security and immutability aspects of DLT or blockchain technology could be adapted to enhance data confidentiality and integrity in ways never seen before and with a promise of ending damaging and expensive database hacks. This breakthrough security solution will detect and stop a future Snowden-type data theft in its tracks.

Technical Concept:

The core of the solution is a private and permissioned blockchain that is based on the same technology employed in cryptocurrency networks but adapted and optimized to provide even higher levels of security assurance and dramatically-improved processing and response times compared to cryptocurrency or other blockchain networks. The technology is deployed and proven in fully commercialized product deployments and addresses the problem of database security across all major database technologies (MS SQL, Oracle, MySQL, and Maria databases). The technology is deployable on-premise or in the Cloud.

The Technica/ALTR solution achieves its mission of immutable database security via three channels:

- **Monitor:** Provides real-time Visibility and Awareness for all views, additions, and edits to a protected data cell.
- **Govern:** Provides Real-Time Control A data “Valve” that governs who can access what data, when, from where, and how much, with capabilities for real-time alerts.
- **Protect:** A unique security enhancement of the solution features Encrypted Data Dispersal, which provides a keyless vault that physically scatters the protected data across multiple private blockchains; creating useless hash values for bad actors or unauthorized users but fully operational information for the business.

Typical Use Case:

The Technica/ALTR solution works by applying a light-weight driver on top of the database application and does not affect or interfere with the internal functioning of the database application in any way.

- It enables database owners/administrators to apply and enforce security at the column level of database table for sensitive or high value data fields.
- Data from protected fields is strongly encrypted, scattered and encoded on several blockchains (typically 3). Hashed values are inserted into the protected data fields.
- Least privilege-based granular permissions enable authorized users to view (retrieve/reassemble/decrypt) values from the scattered blockchain.
- Each view or edit transaction made by users through the database driver users is itself logged to the distributed ledgers/blockchains ensuring complete auditability and accountability.
- Users attempting to view the protected fields by directly accessing the tables see only the incomprehensible hashed values, eliminating the risk of data theft.
- The solution monitors and tracks all accesses to the database, recording who, what, when, and how much on every protected database and reports to any reporting tool.