

# LEGISLATION CONSIDERATIONS FOR ENTERPRISE DISTRIBUTED LEDGER TECHNOLOGY

BALANCING REGULATORY COMPLIANCE,  
BUSINESS GROWTH, AND  
CONSUMER DEMANDS

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Written for consideration of Texas Legislature and  
Enterprise Leaders by: Kelly Massad & Dan McMorris

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## Executive Summary

Blockchain, Distributed Ledger, and Digital Asset technologies represent a sea change in human, societal, and technological evolution; Texas is at the forefront of this movement. These technologies, and the economic, and governance models they support allow this State to:

- 1) Provide the legislative and regulatory framework to be the global leader in recognizing and respecting personal digital property rights to protect citizen identity, privacy, and intellectual property rights
- 2) Lead the transition to clean, sustainable energy by employing new economic models to support the development of more resilient power grids, incentives for base-load integration, and to encourage mining strategies to incentivize “waste” capture
- 3) Encourage the development of more resilient, transparent supply chains, which foster: National Security, Environmental Sustainability, and Consumer Protection.

## Why Now?

As the demand for transparency and traceability in enterprise operations grows, organizations are increasingly turning to distributed ledger technology (DLT) to enhance efficiency, reduce fraud, ensure data privacy, and protect individual and corporate intellectual property. However, the adoption of DLT presents various challenges, including regulatory and legal considerations. This white paper aims to provide guidance for legislators on the important issues needing to be resolved for enterprises to adopt this technology, and best practices for business leaders on how to leverage DLT in their operations.

## Types of Distributed Ledger Technology

DLT can be classified into three types: public, private, and permissioned. Public DLTs, like Bitcoin and Ethereum, are open to anyone, while private and permissioned DLTs restrict access to a select group of participants. Examples of private and permissioned DLTs include Hyperledger Fabric, Quorum and R3's Corda, which are commonly used in enterprise settings. Each type of DLT has its advantages and disadvantages, depending on the use case and the specific requirements of the enterprise.

## Data Privacy and Digital Property Ownership

In an analog world, data is considered in aggregate as it applies to the application. In the case of a driver's license, in order to prove one aspect of identity such as age we must disclose a multitude of other aspects that could compromise civil liberties, such as address and physical description. In the case of real estate title, in order to prove ownership one must reconcile multiple land surveys done over time with varying degrees of accuracy and definition, to different conclusions. DLT and blockchain allow for a new way to manage data, which can help protect the citizens of Texas' rights.

Similarly, data privacy is crucial in enterprise operations, and DLT presents potential risks associated with sharing data across a distributed network if the wrong DLT is selected. Privacy-enhancing technologies, such as zero-knowledge proofs can help isolate the validation of a single aspect of a dataset in order to protect both individuals and corporations. But legislative actions, such as simply defining data as digital property, can help mitigate these risks more broadly. To support the enterprise adoption of DLT and blockchain, legislators should define data as digital property in order to leverage existing laws intended to protect and support businesses.

## Industry Standards and Consortia

Collaboration on a distributed ledger requires adherence to standards, which are established and maintained by industry consortia. The industry clusters defining the consortia may be geographically defined, but are often now located in remote areas of the state, region, or country. New technologies exist, such as DAOs (Distributed Autonomous Organizations) that facilitate the remote collaboration of the details necessary to define and adhere to standards that make this technology useful to enterprises. Legislators should support the legalization of DOAs, as the technology will allow for inclusion of all businesses - local or remote, large or small - in the creation of the standards needed to unlock value, and which will in turn result in the successful adoption of DLT.

The US Chamber of Commerce has recognized the importance of collaboration as it relates to the country's most sensitive supply chains. The *CHIPS and Science Act of 2022*, as well as the Economic Development Administration's *Regional Technology and Innovation Hubs program*, both outline significant funding opportunities for projects that apply new technology - such as DLT and DAOs - to support the growth of key industries. Legislators should work with businesses to explore opportunities where federal funding could bolster regional efforts to facilitate effective enterprise collaboration.

## Best Practices for Enterprise Adoption of DLT

To effectively adopt DLT, enterprises should:

1. Define a clear use case and specific business requirements.
2. Foster cross-functional collaboration between IT and business teams.
3. Select the appropriate DLT platform and architecture based on the use case.
4. Implement robust data governance and security measures.
5. Address potential challenges in integrating DLT with existing systems and processes.

## Enterprise Use Cases for DLT

DLT can be applied across various industries including retail, real estate, energy, ranching/farming/mining, healthcare, hospitality, finance, banking, construction, entertainment, personal computing, semiconductors, defense, commercial aerospace, manufacturing, and more. By leveraging DLT, enterprises can enhance transparency, reduce fraud, and increase operational efficiency.

## Near Future Implications of Consideration

The successful adoption of enterprise DLT requires addressing key challenges, such as data privacy, ownership, and regulatory compliance. By following best practices and participating in industry consortia, enterprises can harness the potential of DLT to improve their operations. With the growing demand for transparency and traceability, now is the time for organizations to explore the benefits of distributed ledger technology.