BRINGING BLOCKCHAIN HOME
REAL-WORLD USE CASES

Global Blockchain Business Council (GBBC)
@GBBCouncil
GBBCouncil.org
WHY DO WE NEED IT?

**PROBLEM**
- Over 1 billion people lack proper identification globally
- Digital and decentralized networks need adequate identity controls
- 2.8 million identity fraud reports in 2021

**SOLUTION**
- Decentralized, Digital Identity

  **For institutions:**
  - Enhance security and KYC/AML compliance to ensure secure digital systems
  - Enable Decentralized Public Key Infrastructure (DPKI) to safeguard privacy while making data available as necessary

  **For individuals:**
  - Self-sovereign identity, an identity system architecture based on the core principle that identity owners have the right to permanently control one or more identifiers together

EXAMPLES

USE CASES FOR GOVERNMENT

Governments have started researching and developing decentralized identity initiatives

<table>
<thead>
<tr>
<th>Country</th>
<th>Initiative Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>ePASS - Ontario’s Digital ID Plan</td>
</tr>
<tr>
<td>Canada</td>
<td>Pan Canadian Trust Framework</td>
</tr>
<tr>
<td>Europe</td>
<td>General Data Protection Regulation (GDPR)</td>
</tr>
<tr>
<td>UK</td>
<td>Proposal for New F.U. ID</td>
</tr>
<tr>
<td>India</td>
<td>India’s Digital ID (Adhaar)</td>
</tr>
<tr>
<td>Estonia</td>
<td>Estonia Global ID Solution</td>
</tr>
</tbody>
</table>

Online identities could unlock 6% of GDP in emerging countries

WHAT ABOUT THE U.S.?

California DMV is developing a set of smart contracts on a public blockchain to solve trusted vehicle transfers, reduce economic costs, and avoid repeated verification steps for customers and public service entities.

FINANCIAL SERVICES

- Access to a global financial network for efficient, direct, and low-cost value exchange
- Enhanced compliance with online services that require proof of identification
- Increased privacy where users can protect anonymity of holdings

INTERNATIONAL BODIES EXPLORING SOLUTIONS

- Bank for International Settlements (BIS)
- International Organization of Securities Commissions (IOSCO)
- Organization for Economic Co-operation and Development (OECD)
- Financial Action Taskforce (FATF)

HEALTHCARE & TRADE

- Know Your Object (KYO) to track an item or cargo from origin to destination as another form of identity
- Electronic healthcare records accessible to users regardless of location or insurance provider
## Dangers in a Digital Data World

<table>
<thead>
<tr>
<th>Problem</th>
<th>The world is digitizing everything, and secure data is the key</th>
</tr>
</thead>
<tbody>
<tr>
<td>$457\text{ MILLION}^1$</td>
<td>Extorted from victims via ransomware in 2022</td>
</tr>
<tr>
<td>$83%^2$</td>
<td>Organizations globally had more than one data breach</td>
</tr>
<tr>
<td>$4.3\text{ MILLION}^2$</td>
<td>Average total cost of a data breach in 2022</td>
</tr>
</tbody>
</table>

Governments are not immune to this problem $^2$

$2.1\text{ MILLION}$

Average total cost of a data breach in the public sector in 2022

The United States was ranked highest in cost of data breaches for the 12th year in a row

## Cybersecurity

### Solutions

**Blockchain-Based Tools**

- **Digital ID** enhances AML/KYC compliance and can establish streamlined access to services
- **Tokenization** enables the ability to digitize an asset
- **Supply chains** strengthened by transparency and ability to detect counterfeit goods

### Follow the Money $^3$

Blockchains' immutable ledgers provide traceable transactions that can be analyzed to determine illicit activities

- Real-time updates with transactions
- Collect and monitor potential evidence
- Real-time updates
- Tracing funds to off-ramps
- Supporting seizures
- Identifying criminals

---

2. *Cost of a Data Breach* IBM (2022)
3. “Key considerations for law enforcement handling blockchain & cryptocurrency data” TRM Labs (February 2023)
FOREIGN EXCHANGE MARKETS

DAILY TURNOVER
Average Daily Turnover in April 2022
USD = 88.5%  GBP = 12.9%
EUR = 30.5%  CNY = 7.0%
JPY = 16.7%

DAILY SPOT
USD = 88.5%  GBP = 12.9%
EUR = 30.5%  CNY = 7.0%
JPY = 16.7%

DAILY FX SWAPS
USD = 88.5%  GBP = 12.9%
EUR = 30.5%  CNY = 7.0%
JPY = 16.7%

USD LEG REPRESENTS 87% OF CROSS-BORDER TRANSACTIONS

WHAT IS THE ROLE OF US$ IN A DIGITAL MONEY WORLD?

STABLECOINS
A crypto asset that aims to maintain a stable value relative to a specified asset, or a pool or basket of assets

TOP STABLECOINS BY MARKET CAP

- **USDC**
  - Market Cap: $44 billion
  - 1.6M holders
  - 24H trading volume: $4B
  - 190+ countries supporting

- **BUSD**
  - Market Cap: $8.7 billion
  - Issued by Binance
  - Fiat-backed
  - Pegged to USD

- **DAI**
  - Market Cap: $7.2 billion
  - Issued by Maker Protocol
  - Collateralized using ETH & other cryptos
  - Pegged to USD

- **TUSD**
  - Market Cap: $1.2 billion
  - Issued by TrustToken
  - Fiat-backed
  - Pegged to USD

- **USDT**
  - Market Cap: $71.4 billion
  - Issued by Tether
  - Fiat-backed
  - Pegged to USD

CBDCs
A digital payment instrument and store of value issued by and is a liability of a jurisdiction's central bank or other monetary authority

- Complement current forms of money and methods for providing financial services
- Enhancing demand for U.S. dollar through greater efficiency of fund flows at lower costs
- Protect U.S. status as the world's reserve currency

ALTERNATIVES: CRYPTOCURRENCIES
A crypto asset that is a digital representation of value with no redeeming rights against a central party

TOP COUNTRIES FOR GLOBAL ADOPTION

- Vietnam
- Philippines
- Ukraine

$1 TRILLION market capitalization
300 million users
WHY TOKENIZATION?

**BENEFITS**

- **Tokenization** is the digital representation of rights and obligations
  - **Transparency and automation** leading to reduced costs
  - **Reduction of risks** due to programmable compliance
  - **Improved accountability** through measurement, reporting, and verification frameworks
  - **Potential to fractionize assets** such as verified CO2 tons (carbon credits)

**EXAMPLES**

- **DIGITAL BONDS**
  - Functions similar to traditional bonds, can have automated lifecycles, reduce settlement times, transaction fees, and increase transparency

- **CARBON CREDITS**
  - Blockchain-based carbon credits enable price transparency, reduce double-spending, allow for accurate accounting of carbon emissions and offsets, and improve effectiveness of voluntary carbon markets

**TOKENIZATION STANDARDS**

Empowers organizations to adopt and use token-powered services in their day-to-day operations across use cases and networks, bringing inclusivity to globally distributed applications

**TOKEN TAXONOMY FRAMEWORK**

The basic structure that enables multiple parties to define a standard with a common language, behaviors, and properties for the exchange of value using tokenization

LEARN MORE ABOUT TTF [HERE](#)

**APPLYING TOKENIZATION**

**INTEROPERABILITY**

- Platform neutral
- Formula used to generate business functionality
- Behaves in a strictly deterministic way

**VOLUNTARY ECOLOGICAL MARKETS**

- Blueprints to help companies build ecosystems that support tokenized environmental assets and interoperability
- Guidance and special considerations for workflows
- Overview of the buy-side and sell-side of environmental markets and how tokenization fits into existing markets

READ THE REPORT [HERE](#)
**Blockchain in Supply Chains**

**Distributed Ledgers**

- By using a distributed ledger for supply chain processes
  - Every party can access the data and authorize who can alter it
  - Transaction details are immutably stored
  - Secure supply chains can be established through hashing properties

**Smart Contracts**

- A self-executing program that defines and enforces a set of conditions amongst parties, without the need for an intermediary
  - Smart contracts remove the need for intermediaries and streamline processes

**Applications**

**Long Term Benefits**

- Reduce Waste and Delays
- Faster Processing of Transactions
- Detect Counterfeit Goods
- Reduce Costs, Fewer Intermediaries
- Increase Trust
- Reduce Compliance Violations
- Track and Trace Products

**Use Cases**

**Examples of Traceable Products**

- Pharmaceuticals
- Food
- Medical supplies
- Electronics
- Original Equipment Manufacturing (OEM) parts

- *Critical Minerals Association*
  Use of transparent process for the security of supply and extraction for acquiring mineral rights

- 1fnbo
  Researching how to implement blockchain in 'CattleID' app

- *Could Blockchain Revolutionize Parcel Shipping?*

- *A Systematic Literature Review of Blockchain-Enabled Supply Chain Traceability Implementations*
The largest and leading industry association for the blockchain technology and digital assets community

500+ International Members
231 Ambassadors
109 Jurisdictions & Disciplines

GLOBAL POLICY TEAM

**Americas**
- Andrea Tinianow CLO and Head of Policy, Americas GBBC
- Dawn Stump Board Member & Co-Chair of Reg Forum GDF
- Jeff Bandman Co-Chair of Reg Forum GDF
- Dina Ellis Rochkind Government and Regulatory Affairs Advisor, Americas GBBC
- Andrew Smith Government and Regulatory Affairs Director, Americas GDF
- Summer Singh Director Policy and Communications, Americas GDF
- Sandra Ro Chief Executive Officer GBBC

**Europe, Middle East, and Africa (EMEA)**
- Lavan Thasarathakumar Government and Regulatory Affairs Director, EMEA GDF
- Dimitris Psarrakis Board Member GDF
- Lawrence Wintermeyer Board Chair GDF
- Emma Joyce Chief Executive Officer GDF
- Abdul Haseeb Basit Chief Financial Officer GBBC

**Asia-Pacific (APAC)**
- Greg Medcraft Board Member GDF
- Steve Vallas Policy Advisor, APAC GDF
- Andras Mandl Board Member GDF

**GBBC ENABLES**

**EDUCATION**
- Meetings with public-private stakeholders & connect 75+ regulators around the globe

**ADVOCACY**
- Digital Assets
  - Codes of conduct
  - Standards
  - Principles

**PARTNERSHIP**
- Global research on
  - Key trends
  - Legislation
  - Innovative use cases

*GBBC is not a lobbying firm*
Global Standards Mapping Initiative (GSMI) is a GBBC initiative that analyzes the blockchain and digital asset landscape by tracking relevant legislation, university courses, industry consortia, and technology standards around the world.

GBBC Digital Finance (GDF) is the financial services arm of GBBC that promotes the adoption of best practices for crypto and digital assets, and digital finance technologies through the development of conduct standards, in a shared engagement forum with market participants, policymakers and regulators.

**By the Numbers**

- **10** Codes of Conduct
- **4** Quarterly Regulator-Only Forums
- **60+** Global Regulators and Agencies
- **10+** Standards, Best Practices and Reports
- **10** Working Groups

**GBBC Digital Finance (GDF)**

- **700+** University Courses
- **2000+** Stakeholders
- **180+** Definitions
- **210** Jurisdictions
- **50** Standards Bodies

**Resources**

- GBBC CEO Testifies at Senate Agriculture Committee
- GSMI Fact Card Series
- International Journal of Blockchain Law (IJBL)
- Global Standards Mapping Initiative (GSMI)
- Weekly Newsletter
- Annual Report

For more information, contact summer.singh@gbbcouncil.org