IBM **Blockchain**

IBM®

How IBM Blockchain can improve government services and ensure trust

Serve citizen needs, fight fraud and help meet compliance demands through trusted, immutable records with IBM Blockchain

From issuing identification and registering property to administering elections and enforcing laws, government must ensure stringent data stewardship to protect citizen information, maintain trust and ensure the accuracy of public records.

Government faces challenges like no other domain: data architects, administrators and privacy officers must protect citizens' personal information, yet keep vital information accessible when needed. Scale complicates life for government administrators, too: the vast scope of mandated services — along with large workforces needed to provide them — can open the door for fraud, waste and abuse, inviting significant errors in vital public records.

IBM experts and technology can help governments leverage blockchain to tackle these challenges, clearing the path to more innovative and intelligent use of data.

Current challenges in government services — and how IBM Blockchain can help.

Supply chain

☐ Challenges

Whether it's the replacement of a street sign, an emergency generator or vital engine part, the ability to track and trace where an object is in the supply chain is vital within large-scale government purchasing systems.

Limited visibility can lead to waste either through over-ordering or a failure to anticipate shortages. Late delivery can lead to significant losses across government – from municipal services to military operations.

☐ **Solutions:** IBM Blockchain makes the precise location of an object — and its accompanying digitized documentation — part of a traceable permanent record giving government full visibility of the supply chain.

Asset registration

☐ Challenges

We rely on government to accurately record and track our homes, businesses, cars and more, verifying ownership and ensuring smooth financial transactions. Accurate and accessible registries are crucial to engender trust and transparency in government.

Despite this need, today's registries suffer from slow, duplicative processes and an over reliance on error-prone, incomplete and manual data entry.

☐ **Solutions:** IBM Blockchain enables government agencies to increase the accuracy and efficiency of publicly held records by linking ownership of an asset to a single, shared ledger without disrupting existing registry data.
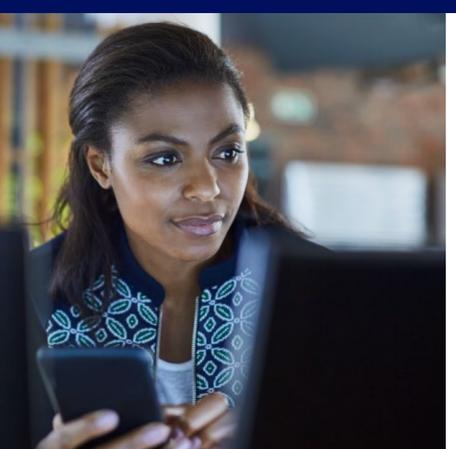
Fraud prevention and compliance

☐ Challenges

Fraud, information privacy abuse and accidental data exposure plague government data transactions. Siloed legacy systems and processes within government result in multiple versions of multi-user data sets.

In the absence of a single version of the truth, the risk of fraud and difficulty in ensuring compliance increases each time a data set is accessed because there is no way to distinguish between correct and incorrect entries.

☐ **Solutions:** IBM Blockchain creates a shared and trusted ledger that sequentially appends cryptographically secure data. The ledger is only accessible to trusted parties, giving government administrators the assurance that they're working with data that's up-to-date, accurate and nearly impossible to manipulate.

Identity services

☐ Challenges

From licensure to passports to publicly funded medical services, establishing and verifying identity is vitally important for both citizens and government agencies themselves. The financial and personnel costs of providing rigorous identity services, though, are enormous.

The great need for identification documents and verification of existing credentials arises partly from the difficulty in linking enough verifiable personal data on which to base any kind of government-issued identification. What sounds like a simple task is complicated by records in different formats, of varying provenance, and containing sometimes-conflicting data.

☐ **Solutions:** IBM Blockchain enables government agencies to create a single, trustworthy collection of digital identity documents. These documents make it easier for government officials to reconcile data conflicts and provide citizens with control over their own identity.

How IBM Blockchain helps governments — and citizens

IBM Blockchain helps government leaders and agencies confidently create a framework of linked data records — through an immutable ledger — that preserves vital information in a distributed, highly available form based on trust and transparency, even at the largest scales.

IBM Blockchain leverages advanced cryptography to create permissioned records, ranging from personal identification to registered property transactions, available to authorized members of the blockchain network like tax authorities or other government agencies.

Blockchain also allows advanced, automated smart contracts to help govern processes and business flows that are agreed upon by the consensus network.

Only IBM has worked with more than 400 clients around the world to design and deliver successful blockchain projects. We've helped over 32 government agencies in more than 7 countries explore and deploy blockchain to overcome data challenges, improve service delivery and strengthen trust and transparency. **Visit ibm.com/blockchain/services to explore more.**

LEARN MORE