

# DTM & BLOCKCHAIN

*evaluating identity, signatures,  
& smart contracts*

3 KEY USE CASES OF BLOCKCHAIN IN DIGITAL TRANSACTION MANAGEMENT

## BUT FIRST, THE CURRENT STATE OF BLOCKCHAIN:

SEVERAL COMPETING STANDARDS

**public**  
vs.  
*private*

public comes with security risks



participants must be given permission to participate in private network



**HyperLedger**  
public or private

*backed by*  
Linux, IBM,  
Intel, Oracle

vs.

**Ethereum**  
public or private

*backed by*  
Ethereum.org,  
> 150 enterprises

vs.

**R3/Corda**  
private

*backed by*  
R3, Barclays, UBS,  
100 financial  
institutions

## DIGITAL IDENTITY

### Identity *today*

digital or electronic signature



identity & access management



government ID



vs.

### Identity *with blockchain*

private blockchain



digital wallet



decentralized identity foundation



01

### Banks support digital identity in *Canada*

IBM is pushing its HyperLedger-based blockchain in conjunction with SecureKey to offer consumers a secure and trusted digital identity. A number of Canadian banks have signed on.



### *Globally,* lack of standardization hinders blockchain

Like current DTM providers, blockchain offers validated ways of verifying identity. However, there are various blockchain networks that do not interoperate or communicate with each other.



02

## SIGNATURES

### *DTM providers* already



verify identity of person or entity in transaction



use their own potentially more tamper-proof algorithms or RSA and PKI

### *prediction:*

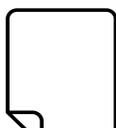
THROUGH 2022, BLOCKCHAIN WILL OFFER NO SIGNIFICANT ADVANTAGE FOR DIGITAL SIGNATURES OVER CURRENT E-SIGNATURE AND DIGITAL SIGNATURE APPROACHES.

03

## SMART CONTRACTS

### Contracts *today*

Party A



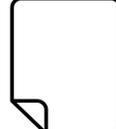
Party B

manual enforcement

vs.

### Smart Contracts *with blockchain*

Party A



Party B

Party C

automatic enforcement

### *prediction:*

THERE ARE A NUMBER OF CHALLENGES FOR SMART CONTRACTS THAT WILL NEED TO BE MITIGATED, BUT BY YE 2023, UP TO 35% OF B2B CONTRACTS WILL LEVERAGE SMART CONTRACTS TECHNOLOGY.



35%