

# RSA®Conference2018

San Francisco | April 16 – 20 | Moscone Center

SESSION ID: PDAC-W02

## THE REALITIES OF ENTERPRISE BLOCKCHAIN

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#RSAC

# 6000 Years Ago...



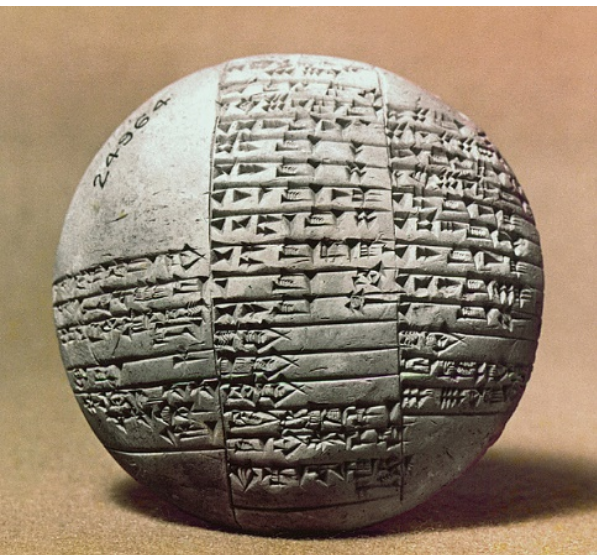


# Everything Old Is New Again..





# Early Ledger Technology





# Early Ledger Tech : Not Privacy Preserving!



# Blockchain





# In Reality : Flat File Database



# Blockchain



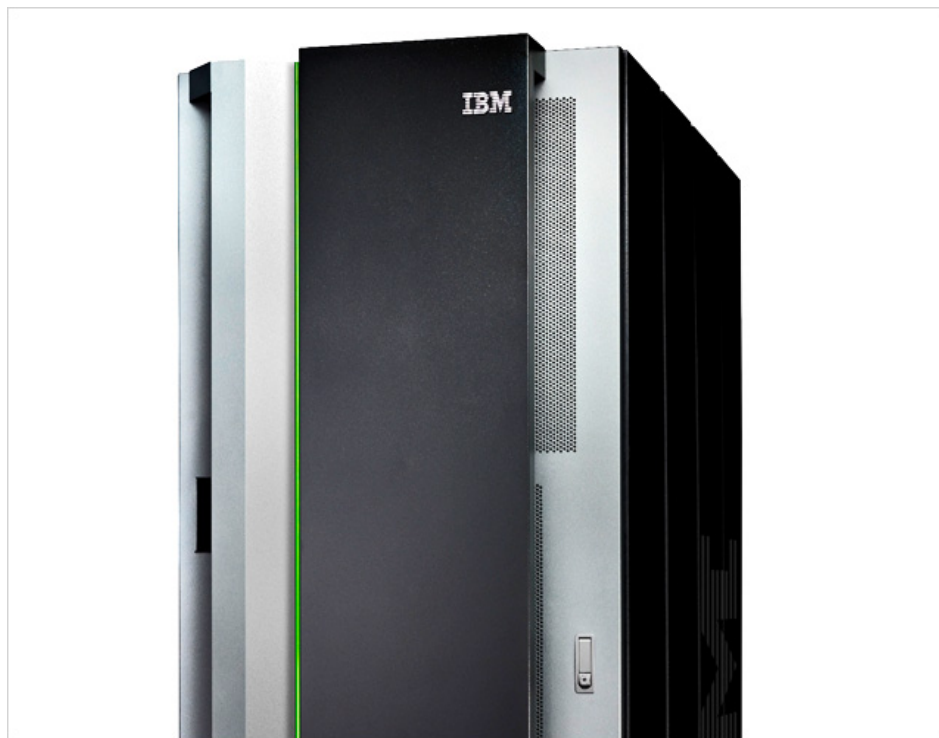


# Where Can Enterprises Use Blockchain?



- Cross team or cross organization transactions, auditing, and dispute resolution
- Auditable – Chain keeps audit record of data and state
  - Instant auditability if transactions are properly synced
  - Maintenance records, accounting, etc
- Permissioned – gated by member system
- Privacy – If properly utilized

# Early Computing : Mainframe





# Ethereum : A “New” Computer

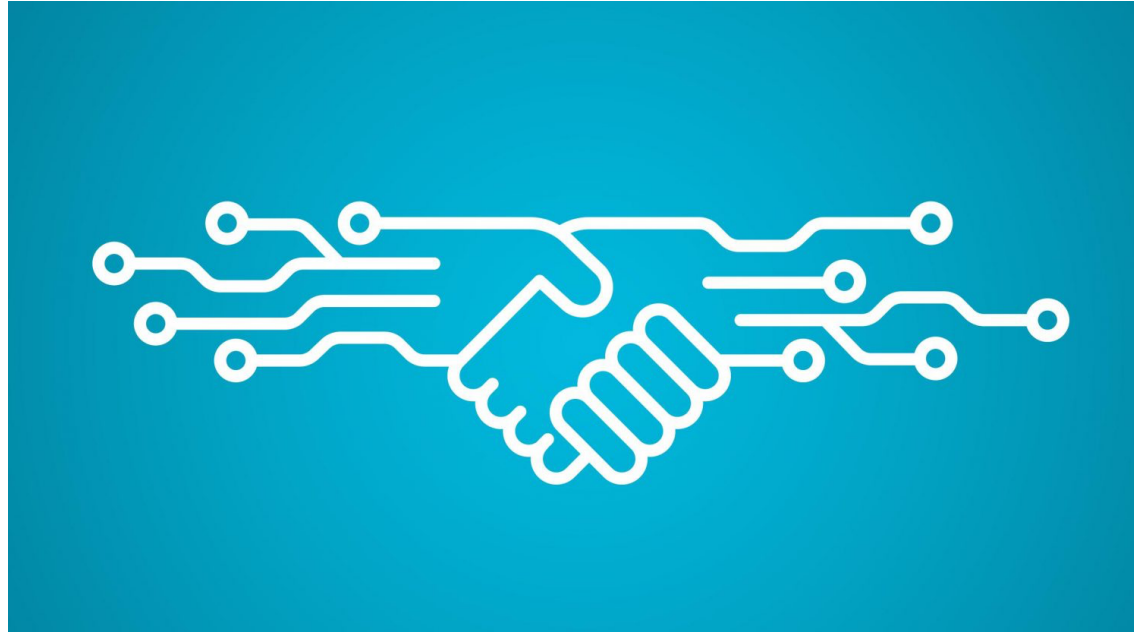


# Early Program Storage Tech: ROM





# Smart Contracts



# Smart Contract Bug *Classes*





# Ethereum



# History Repeats Itself











# Repeat Until 5 Copies Print



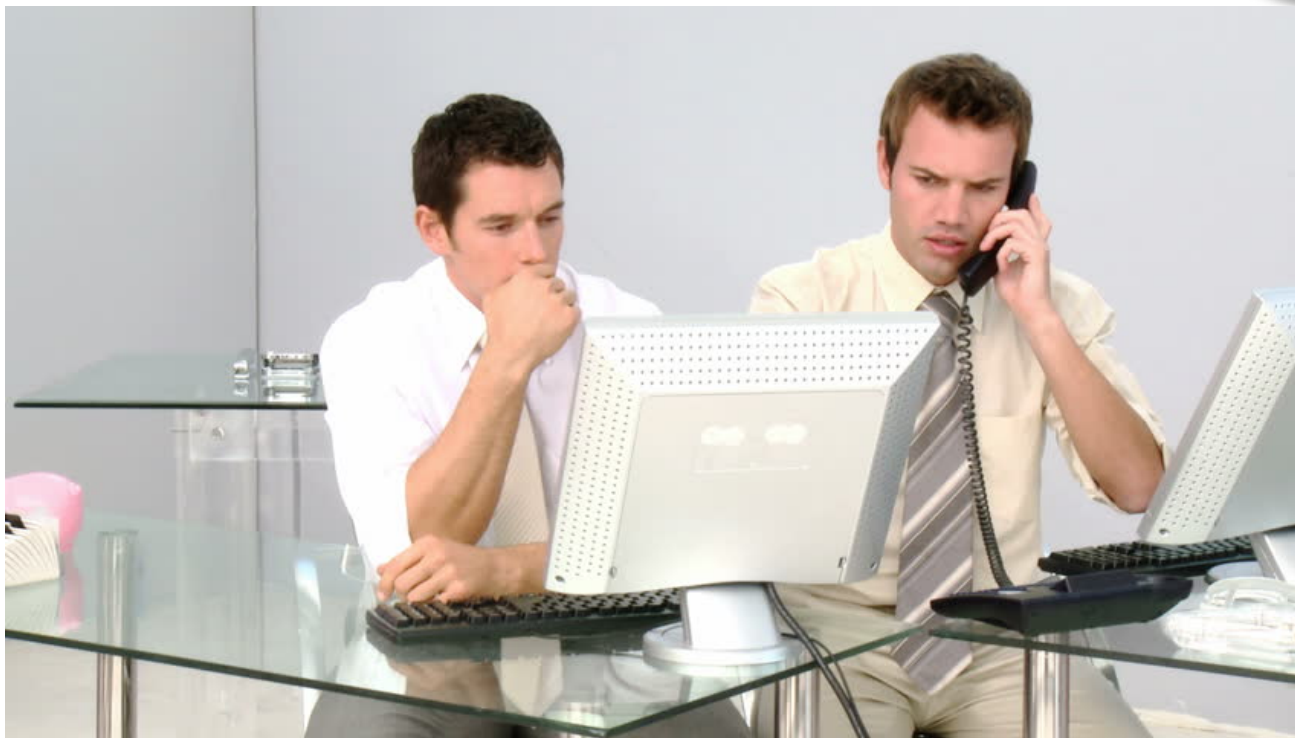
# Computers: Great At Looping Humans



Comp	Deter	Reliable	Available	Comms	Security	Distrbu	Fault Tol	Scalable	Isolation	ID
Main	X	X	X				X		X	
PC	X				X				X	
Web	X		X	X		X		X		X
Mobile	X	X	X	X	X	X		X		X
Cloud	X	*	*	X	X	*	*	X	X	
IoT	X			X		X		X		
DAPP	X	X	X	X		X	X			



# How Cross Org Syncing Is Still Done



# Quorum





# Hyper Ledger Fabric



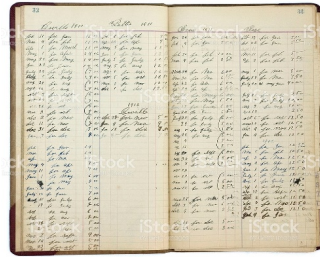
# HYPERLEDGER

# Quorum and Hyperledger



# HYPERLEDGER

# Where To From Here?





# The Applied Realities



- Enterprise Blockchain are trusted platforms for publishing distributed applications.
- This platform is the integration of a computer , P2P network, and a database.
- Smart Contracts are the apps that run on this platform.
- The help solve problems where there is no central authority but there must be trust between parties.



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