A Blockchain Narrative for Digital Identity

The potential for real change

BCS/EEMA
Future Privacy & Identity
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David G.W. Birch
Director of Innovation at Consult Hyperion

An internationally-recognised thought leader in digital identity and digital money;
Named one of the global top 15 favourite sources of business information (Wired magazine);
In the London FinTech top 10 most influential commentators (City A.M.);
One of the top ten Twitter accounts followed by innovators, along with Bill Gates and Richard Branson (PR Daily);
One of the top ten most influential voices in banking (Financial Brand);
Named one of the “Fintech Titans” (NextBank);
Ranked Europe’s most influential commentator on emerging payments (Total Payments magazine).
Blockchains and Blockheads

"With private chains, you can have a completely known universe of transaction processors," Masters says. "That appeals to financial institutions that are wary of the bitcoin blockchain."

Masters recognized that the open structure of the bitcoin process—no one controls who does the mining—would be anathema to an industry in which client confidentiality is sacrosanct. So in July, the company acquired Hyperledger, a San Francisco software firm that’s developing the technological equivalent of gated communities, ES

"It’s all about the blockchain… no, wait private chains… I mean shared ledgers…"
What’s the Problem?

Bitcoin
An inefficient way to solve a problem that none of us have

KYC/AML/CTF/PEP
Costs are out of control for no benefits that anyone can measure

Financial Services Passport
techUK working group architectures
Centralised, federated… distributed shared ledger

Shared Ledger Architecture

- Contract
- Consensus
- Communications

- How can we animate the transaction history so that events trigger predetermined actions?
- How do we maintain the integrity of the transaction history across organisations?
- How are transactions created and propagated inside and between organisations?

- Why shared ledger? Innovation
- Why shared ledger? Transparency
- Why shared ledger? Robustness
Communications: Robust

RBS fined £56m over ‘unacceptable’ computer failure

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'NatWest lost my salary, refused to help and then GUILT-TRIPPED me because I was going to Ascot': How to fight back after bank computer meltdown

By TOBY WALNE FOR THE MAIL ON SUNDAY

Another week, and yet more computer meltdowns to infuriate bank and building society customers. Last Monday, millions of Nationwide customers were prevented from accessing their accounts via the internet.

Twenty four hours later, it was the turn of Royal Bank of Scotland’s computer systems to crash. Here, TOBY WALNE looks at what customers at RBS need to do to get compensation – and whether they should ditch the bank.

WHAT HAPPENED AT RBS LAST WEEK?

A computer meltdown hit 650,000 bank customers of RBS and subsidiaries NatWest, Ulster Bank and upmarket Coutts.

Payments due to be made into their bank accounts or money due to go out were delayed – until at least yesterday.

The crisis has created a major headache for customers with wages and pensions not

Consensus: Transparency

By one measure, at least $10 billion in assets investment banks had only six in capital to cover a percent drop in asset values could have wiped their excessive leverage using derivatives, for other devises the report found. The special giant "shadow banking system" in which the term debt.

“When the housing and mortgage markets crashed, the lack of transparency, the extraordinary debt loads, the short-term loans and the fast assets it came close to ruin,” the report found. “What resulted was panic. We had ruined what we had now.”

The report, which was heavily shaped by the commission’s chairman, Phil Angelides, is dotted with literary flourishes. It reads credit agencies “wrote in the wheel of financial destruction.” Paraphrasing Shakespeare’s “Julius Caesar,” it states, “The fault lies not in the stars, but in us.”

And then it happened. For over a week, there had been a run on the assets of three structured investment vehicles (SIVs) of BNP Paribas. The run was so severe that on August 8, BNP Paribas had to accept redemption requests. This event informed investors that the asset-backed commercial papers (ABCPs) and SIVs were not necessarily safe short-term vehicles. Instead, these conduits were supported by subprime and other questionable credit quality assets, which had essentially lost their liquidity or resale options.

BNP Paribas’ announcement caused the asset-backed commercial paper market to freeze, an event that most succinctly highlights the next major step to a financial crisis, namely the lack of transparency and resulting counterparty risk concerns.

Consider the conundrum of BNP Paribas. For several years, there had been a huge growth in the development of structured products. ABCPs and SIVs, being just two examples. However, once pricing was calibrated into credit as subprime mortgages defaulted, the credit market failed.

LESSONS FROM THE LAST FINANCIAL CRISIS

1 The Future Role of Institutional Investors

by Lara Robideau

The dynamics of the financial crisis were driven by a misunderstanding of risk and lack of transparency, which led to a loss of confidence when the bubble finally burst. A wave of market and regulatory interventions that caused a permanent transfer of losses to the public sector as well as sovereign-debt crises that may evolve parallel solutions. Letting banks fail is a necessary disciplinary measure, but this requires a well-defined “game plan” that did not exist in the crisis. Regulatory reforms underway aim at restoring confidence, but they may hamper the liquidity institutions and perhaps penalize development. The more important is to make sure that the reforms are not based on false premises, including the role of shadow banks. The question remains what was the role of shadow banks, which used off-balance-sheet vehicles known as SIVs to hide what they were doing.

This set of recommendations corresponds to select points relevant to transparency and accountability as published progress report on the economic and financial actions of London, Washington and Pittsburgh G20 summits.

Prepared by the UK Chair of the G20, St. Andrews, 7 November 2003
p.225 Smart contracts need not be limited to finance and when paired with “smart property” — where deeds, titles and other certifications of ownership are put in digital form to be acted on by software — these contracts allow the automatic transfer for ownership of a physical asset.

Shared Ledgers

“Traditional” Ledgers

- Only one

- Are there many copies of the ledger?

Public Shared Ledgers

- Yes, anyone can use them
- but why do they maintain the integrity?
- They are given rewards on the ledger itself
double permissionless

Private Shared Ledgers

- No, only a selected group.
- but who maintains the integrity?
- They are given incentives off the ledger
- permissioned

- All group members.
- privileged group members
double permissioned

from your friends at Consult Hyperion
Double Permissioned

ItBit Reveals Bankchain Project Won't Use Bitcoin

Pete Rizzo (@pete_rizzo_) | Published on August 13, 2015 at 23:20 BST

Inspired by the blockchain

ItBit has revealed new details about its formerly top-secret Bankchain project, a private consensus-based ledger system aimed at appealing to enterprise financial institutions.

With the formal unveiling, the New York-based bitcoin exchange has joined the number of blockchain firms seeking to compete for the attention of banks that want to utilize the efficiencies of distributed databases without using bitcoin or its blockchain.

In a new interview, Steve Wager, head of global operations for ItBit, spoke at length about the project, rumors of which first began surfacing in late July. Speculation was followed by confirmation from the exchange it would host a private, one-day summit in New York to promote its release.

Permissioned

Hands On With Linq, Nasdaq's Private Markets Blockchain Project

Pete Rizzo (@pete_rizzo_) | Published on November 21, 2015 at 14:57 GMT

FEATURE

Hands On With Linq, Nasdaq's Private Markets Blockchain Project
Westpac, ANZ trial Ripple’s Blockchain ledger system, but say no to Bitcoin, for now

by Duncan Riley | Jun 9, 2015 | 0 comments

Bitcoin.de Launches Integration With Fidor Bank Accounts

Daniel Palmer | Published on February 23, 2015 at 17:03 GMT

Bitcoin.de's long-standing partnership with Fidor Bank has finally borne fruit, with the company claiming it is the world’s first bitcoin trading platform with a "direct connection to the classic banking system".

Bitcoin.de says the arrangement brings a far faster service, allowing EUR/BTC trades to be completed within "seconds" when both customers have a free ‘FIDOR Smart Giro Account’.
Use Cases

ID

Take external identities (e.g., passport) and store them on the ledger.

id

Crystallize an identity on the ledger and bind it to multiple external identities.
#regtech Ambient Accountability

ambient-accountability.org
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