



## Nick's Corner



### Blockchain Now and Tomorrow

*Extract from Executive summary from the Science for Policy report by the Joint Research Centre (JRC), the European Commission's science and knowledge service publication 2019.*

#### How blockchain works:

Blockchain is a tamper-resistant and time-stamped database (ledger) operating through a distributed network of multiple nodes or users. Transactions between users do not require intermediaries or trusted third parties. Instead,

trust is based on the rules that everyone follows to verify, validate and add transactions to the blockchain – a 'consensus mechanism'. Blockchain is based on a combination of key features: decentralisation, tamper-resistant, transparency, security and smart contracts. The lack of a central entity controlling the system creates strong resilience against single point-of-failure flaws. Since it is extremely difficult to change or delete the record of transactions, in this sense the records on a blockchain are tamper resistant. All transactions are time-stamped – that is, data such as details about a payment, a contract, transfer of ownership, etc. are linked publicly to a certain date and time. And smart contracts enable the terms of agreement between parties to be executed and enforced without the need for human coordination or intervention.

**Its potential has come to the foreground in many other sectors**, such as financial services, trade and supply chains, manufacturing, energy, creative industries, healthcare, and government, public and third sectors. The rise of blockchain technology is witnessed by both the sharp growth in blockchain start-ups and by the volume of their funding. Funding reached over EUR 7.4 billion in 2018 due to the explosion of ICOs and venture capital investments.

**Blockchain does not follow a 'one-size-fits-all' model.** The potential opportunities and challenges of deploying blockchain technology are strongly related to context, application or sectorial issues. That is why organisations should not develop solutions looking for problems, but instead should find existing or foreseeable problems in their operations or business, and then look for possible blockchain solutions.

**Bottlenecks and complex challenges lie ahead** such as performance and scalability, energy consumption, data privacy, integration with legacy infrastructures, or interoperability between different blockchains.

**The concepts of trust and disintermediation are changing.** Despite widespread misconceptions, blockchain does not imply the total elimination of intermediaries or third parties. Some intermediaries may disappear but new ones will appear and traditional ones, like governments, will continue to play a long-term role, not least to guarantee equal conditions for participation, check the quality and validity of data, decide on responsibility and liability, or settle disputes and enforce rules.

**Regulatory frameworks and guidelines are catching up.** Policymakers and regulators need to progress in assessing whether existing policies and laws are fit for purpose or if new frameworks will be required i.e. the legal classification of tokens and coins, validity of smart contracts, applicable jurisdictions, consumer and investor protection, enforcement of anti-money laundering requirements, and data protection and privacy safeguards. Integration with digitisation initiatives and programmes is key. Blockchains will be complementary or will work together with other key digital technologies, such as artificial intelligence, internet of things, data analytics, cloud computing, robotics and additive manufacturing. The development of blockchain should be connected to existing digitisation initiatives and programmes to avoid overlaps and to maximise impact.

### Capacity building and knowledge sharing can be decisive.

Environments such as regulatory sandboxes and other experimentation spaces can promote more direct exchanges between policymakers, regulators and supervisors, on the one hand, and blockchain companies, start-ups and entrepreneurs, on the other. Key benefits can include testing new solutions and business models and improving the quality and speed of policy guidance.

**Blockchain calls for an interdisciplinary and comprehensive approach.** Blockchain applications can have far-reaching implications at policy, economic, social, technical, legal or environmental level.

**Monitoring should be combined with an anticipatory outlook.** Policy dilemmas today involve a balance between adequate enforcement of existing regulations from day one, and the flexibility to accommodate an evolving technology with both foreseeable and unforeseeable benefits. This balance can be grounded in a foresight and trend monitoring approach to enable preparedness and adaptation to an increasingly rapid pace of change.

## Client Services

Have you completed the necessary action items in preparation for the mandatory holding balances functionality?

**Action 1:** Perform Recon

**Action 2:** Testing on UAT

Action 3: Update Live

#### Recap on the process of the recon:

The recon must be performed between your ledger and the FinSwitch ledger (this is the extract that was emailed to all on the 17 January 2020). The recon will identify 3 outcomes:

1. Matched accounts (the accounts are on FinSwitch and your ledger) – Ideal state, no impact on the confirms files
2. Accounts are on your ledger but not on FinSwitch – No impact on the confirms files, FinSwitch will accept these balances
3. **Accounts are on FinSwitch but not on your ledger – Confirms file will fail. SOLUTION:** Remove these accounts from FinSwitch as trading cannot take place because they are not valid active linked accounts. This is a simple process and can be done via the fund linking file using the "Delete" status

#### Recap on the testing process:

- FinSwitch UAT is available to test this functionality
- The trade cycle must be tested to verify that the confirms file is compliant (the outcome should be a successful upload, with no errors referring to holding balances required)

The two action items must be performed in UAT, once there is sign off on a compliant confirms file the next step is to clean up FinSwitch **Live**. Please apply the solution (step 3 above) into Live i.e. the fund linking used to remove or add any accounts in UAT must be uploaded in Live.

Please speak to FinSwitch, should you require any clarity on the above.

**Best Wishes**

**Tasneem Gydien**

**Manager: Client Relations**

## Application Desk

Release 1 for 2020 is scheduled to go into production in March. Just some of the highlights included in this release:

- Mandatory opening and closing holding balance validations will be required in the confirmation files
- My Fund Accounts data cleanup; this will remove all inactive account links and is crucial to ensure that holding balance validation is performed only on valid active linked accounts
- Enhanced error message handling resulting from loading files that result in validation errors; an output file link has been added to the process screen containing the loaded file which includes an error message appended to the detail line that failed input validation
- Enhanced webservice functionality allowing flexible wait time for webservice download methods: DownloadFile and DownloadFileAsString. Currently this is set to 10 minutes and this can be set to a shorter time per file type
- Enhanced webservice functionality with the ability for multiple confirmation file downloads a day including an option of excluding records already downloaded for the same cycle date and user

**Best Wishes**

**Dawn Cooper**

**Manager: Application & Development**

## B-BBEE Certificate

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