OAN Use Cases

Use Case 1: AgriTech self-sovereign KPI credit score

The first use case is based on Moves (the OAN's flagship in-house Open App) "*creating a self-sovereign credit score that the user owns and controls with a private key".* The AgriTech use case is titled ***Improving the Survival Rates of Poultry Farmer Co-operatives***. The operational KPIs of production units form the basis for support from various funding and supporting Government stake holders. These KPIs can be linked at the back-end to smart contracts connecting to an address on the OAN's blockchain, creating a self-sovereign KPI credit score that the co-op can own and control with a private key.

This idea stems from the current collaborative with a South African company that works on digitising farming industries of small hold poultry farmers in SA.

Reference: https://medium.com/@j.p.dipasquale/theoan-mainstream-21b360a75cba

Use Case 2: Biometric Applications with Homomorphic Encryption on Mobile Platforms

The second use case is related to Privacy. There is a great need to preserve Biometric data especially on mobile platforms where we tend to run most of our sensitive applications such as personal banking, voting and the like. More recently, homomorphic encryption has been used to secure Biometric data. This project is close to the Privacy Test Network of the Open Application Network that uses Zero Knowledge Proof where verification depends on computation of elliptical curve pairings and runs on the Aion Virtual Machine (AVM).

This idea stems from the fact that the author's research expertise is in Biometrics and Security. Recently, the author is working with colleagues specialising in Mathematics and Computer Science in understanding biometric homomorphic encryption. Hence it's a natural progression to investigate i) how biometric data can be made secure using BC ii) where such an application can extend to varied platforms as promoted by AON.

Reference: https://medium.com/@j.p.dipasquale/theoan-mainstream-21b360a75cba

Use Case 3: P2P Renewable Energy Transaction

The author has in the recent past completed a smart solar energy project jointly with industry partners in the UK. The project involves making solar panels smart through embedded IoT devices that can talk to one another and a central node that performs the role of a Management Module. The work is based on the patent work by the industry partner. The final goal is to enable P2P renewable energy transaction where each solar panel (or farm) can act a node in the BC. The solar farms then become equivalent to a Co-operative which can then transfer its production as a credit score that can be linked to smart contracts on AON blockchain.

Reference: https://www.mdpi.com/1424-8220/20/18/5252/pdf