



# Storecoin p2p cloud computing platform — datacoin use cases



October 2019

Datacoins are tokens that represent a unit of data in the apps



1 MB of data = 1 datacoin

# What is a good use case?

## **Success of a use case** (both need to exist):

1) It's more profitable for developers to tokenize their app/device's data/APIs than centralizing it in AWS

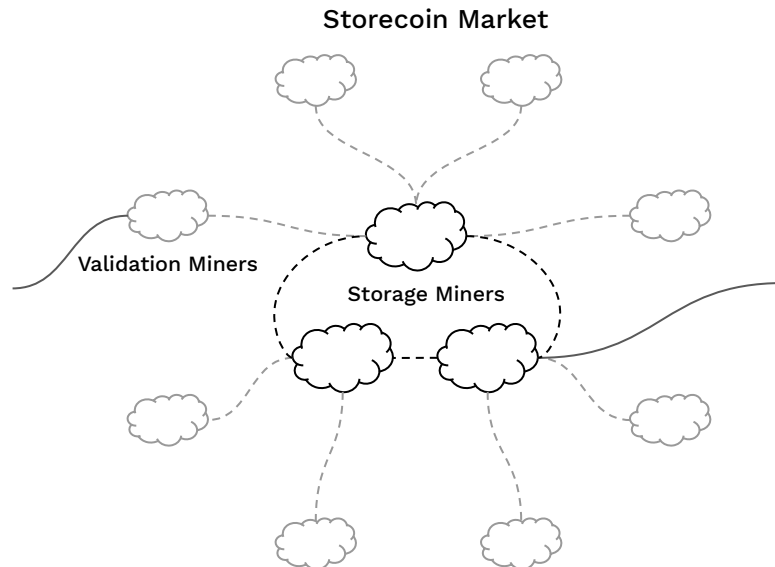
2) Instead of being paid in \$STORE for providing p2p computing to developers, the miners want to be paid in the datacoin itself. In this scenario, miners believe/know the app's data is more valuable/profitable "on the open market" than being paid the \$STORE for p2p compute/storage. Here, miners -- via governance -- would be begging to provide zero-fee computing resources to the developer in exchange for getting paid their datacoin as revenue for cloud services. In this scenario, the miners -- through governance -- could also make the rules for the datacoin economy (vs. the developers who make the rules when they use \$STORE to buy p2p cloud from STORE (Storecoin)).

# Storecoin Markets — cost and performance

Storecoin Markets have **decentralization premiums**, so cost and performance compared to centralized cloud services, such as AWS, depend on how complex the apps are.

Validation nodes provide **secure runtime** for tokenized apps and serve as **edge computing** nodes.

They allow running computation closer to user data, thus eliminating large volumes of data transfers between computation and storage nodes.

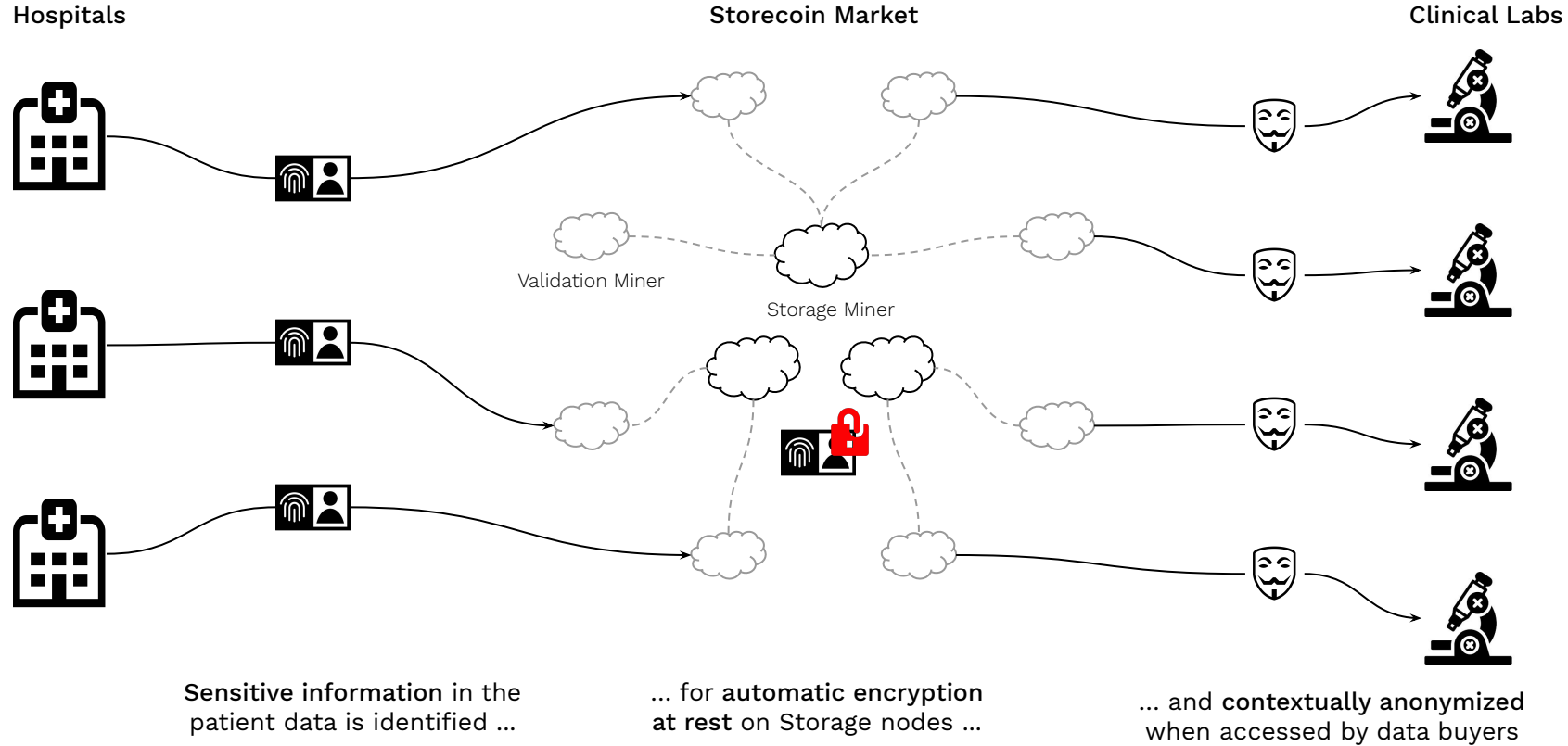


Storage nodes provide **secure storage** with **default encryption** and **anonymization** capabilities to handle sensitive information.

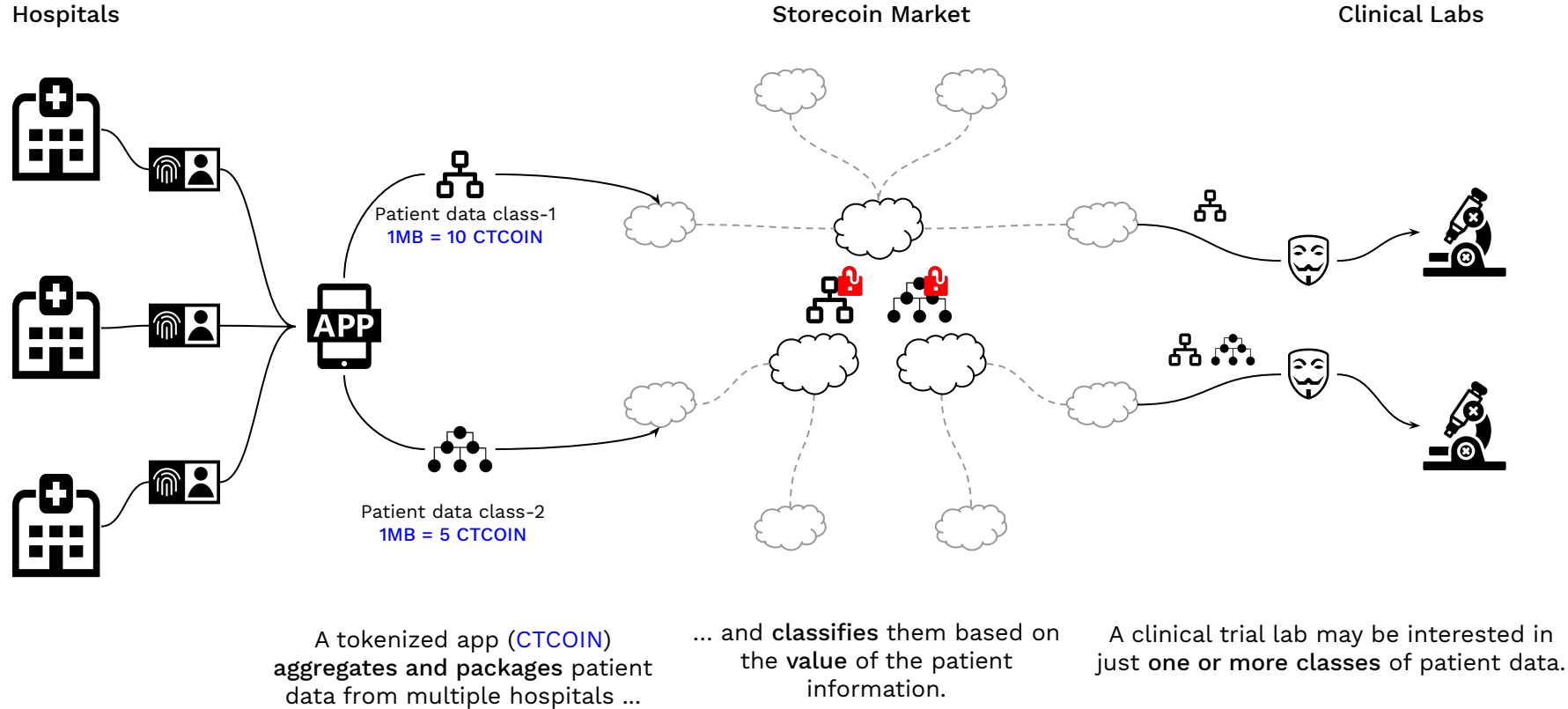
They also provide **geographically distributed, replicated** data storage services.

A complex app or service that requires **geographically replicated data store** and **edge caching** benefits from Storecoin Market's architecture in terms of cost and performance.

# Use case 1 — Privacy-preserving patient data in clinical trials



# Use case 1 — Datacoin use for the patient data in clinical trials



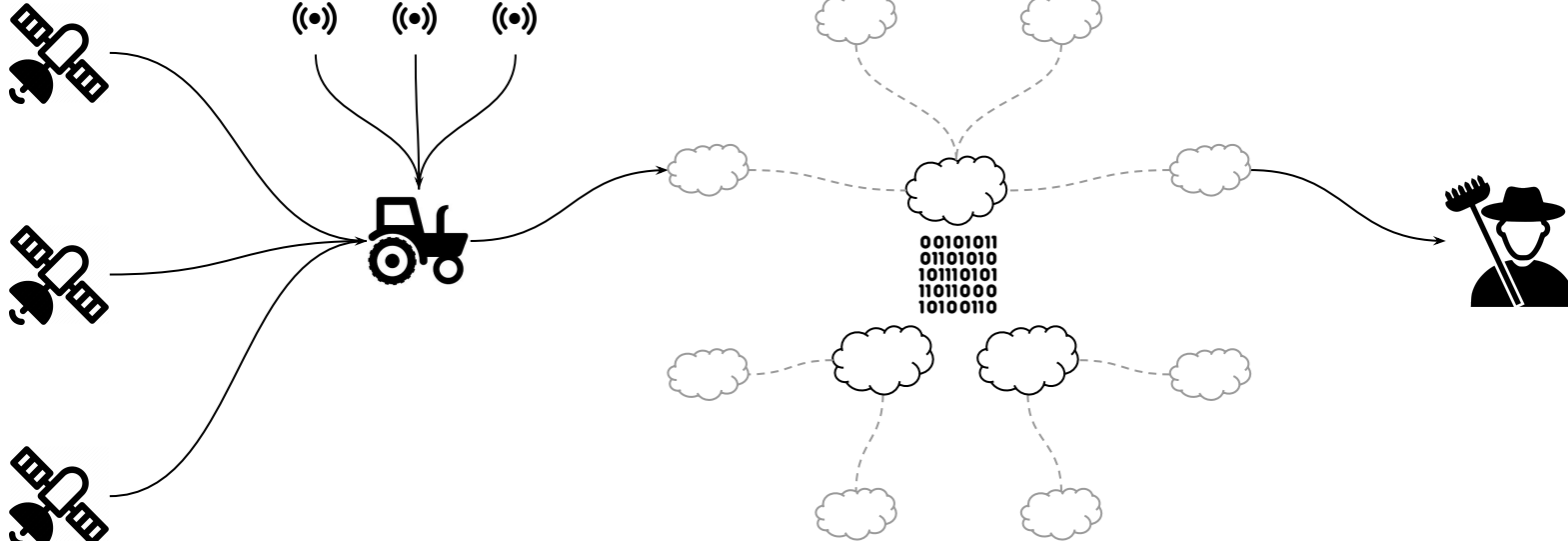
# Use case 2 — A farmer subscribing to autonomous farming

GPS satellites

Remote sensors

Storecoin Market

Farmer



A tokenized app (TRACTORCOIN) uses remote sensors and GPS data to autonomously farm farmlands.

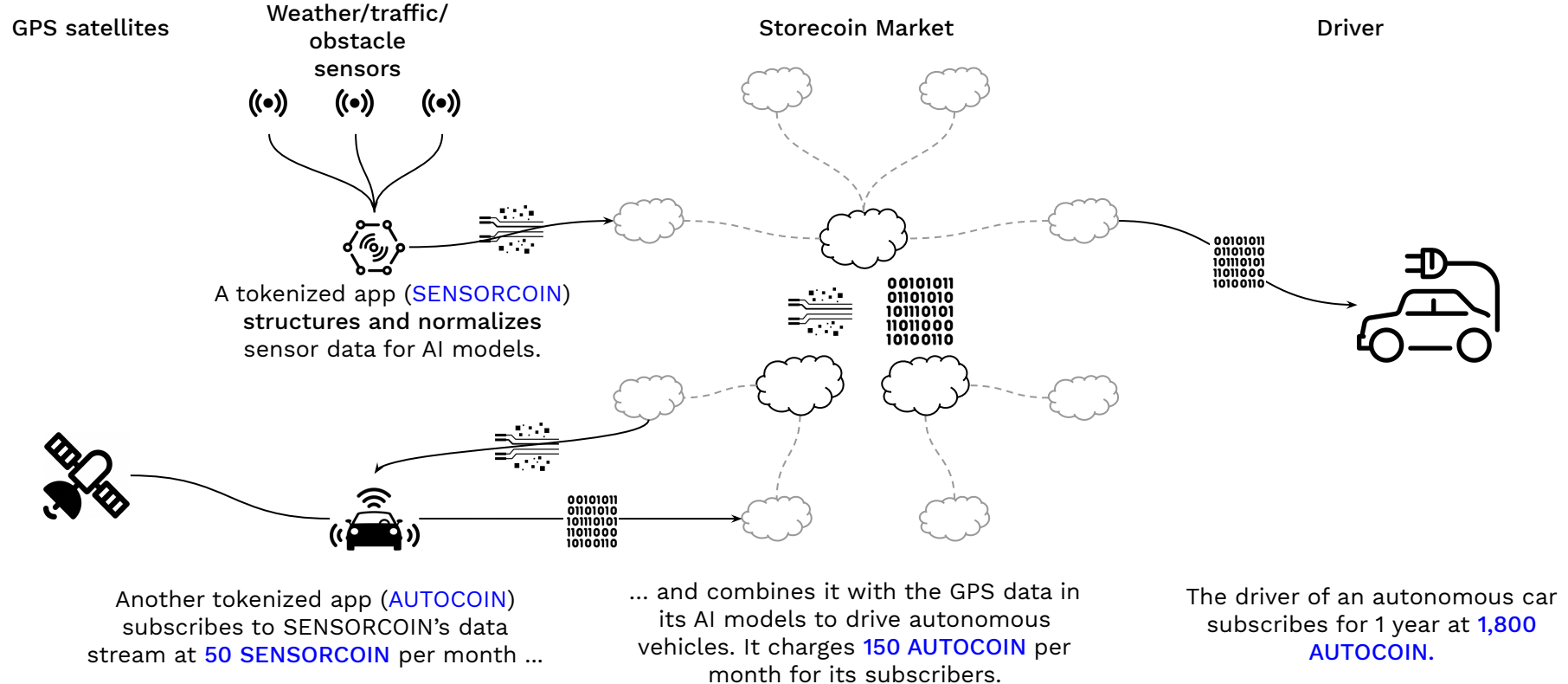
The streaming control data can be purchased with a precision of 10 ft x 10 ft at **0.0001 TRACTORCOIN per 100 sq. ft. unit per hour.**

The farmer pays  $(43,560 \times 0.0001 / 100) \times 10 \times 8 \times 14 = 49$  TRACTORCOINS to farm 10 acres of land at 8 hours a day for 2 weeks.



There is no sensitive information in the streaming data, so encryption at rest and anonymization are not required.

# Use case 3 — autonomous vehicles

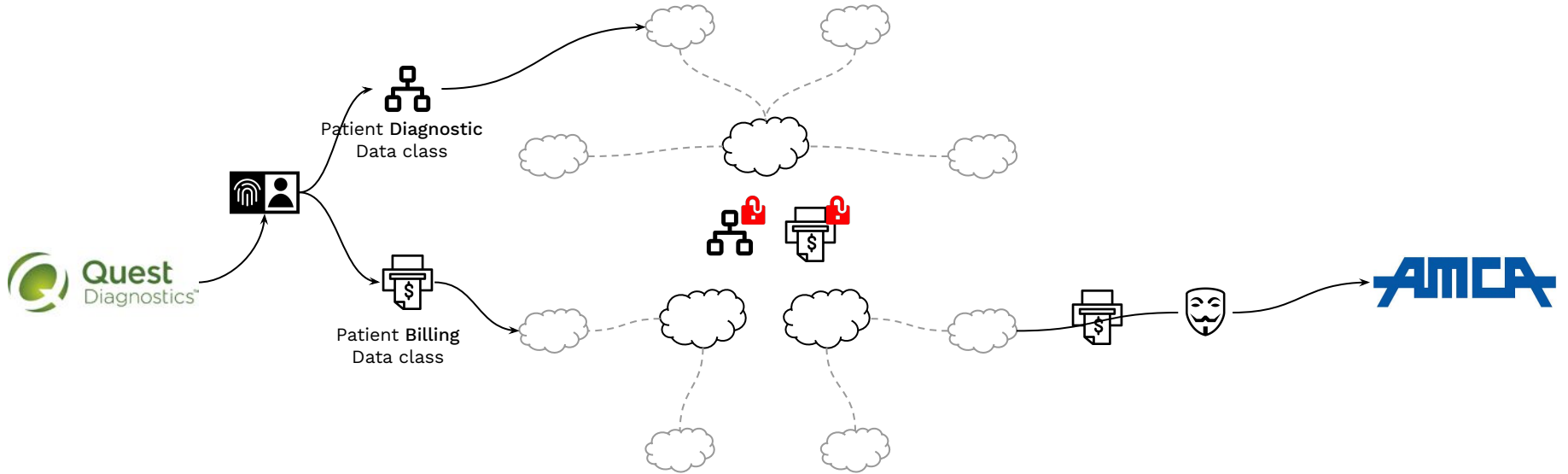


This is a special case of use case 2, but illustrates how one app leverages data streams from another app to provide value-added services.



# Use case 4 — Prevent data leaks with partners and customers\*

\* Massive Quest Diagnostics data breach impacts 12 million patients



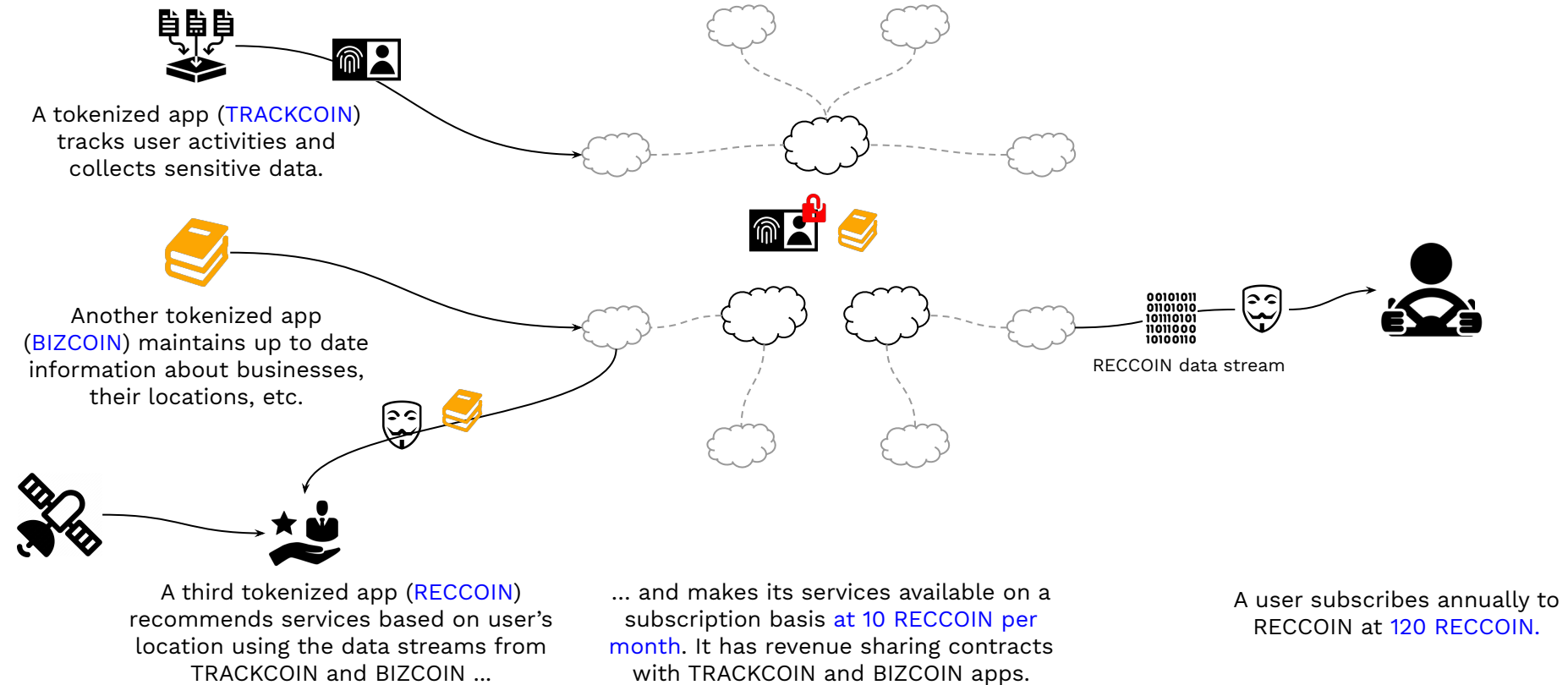
Quest classifies patient data into **sensitive diagnostic data**, billing data, etc.

All classes of data are **encrypted at rest** for data security.

AMCA only gets billing data with sensitive information (if any) **anonymized** on a per patient basis.

This use case doesn't use datacoins, but illustrates how **sensitive information** is stored and shared securely with partners and customers without leaking data when data leaves one infrastructure to another.

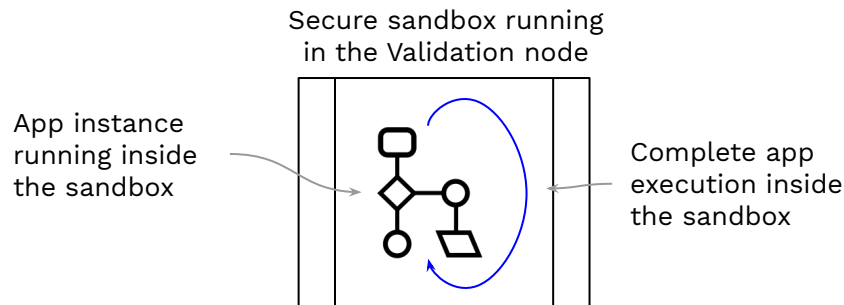
# Use case 5 — Prevent data leaks — ad industry example



# Use case 6 — Migration of an existing app onto Storecoin Platform

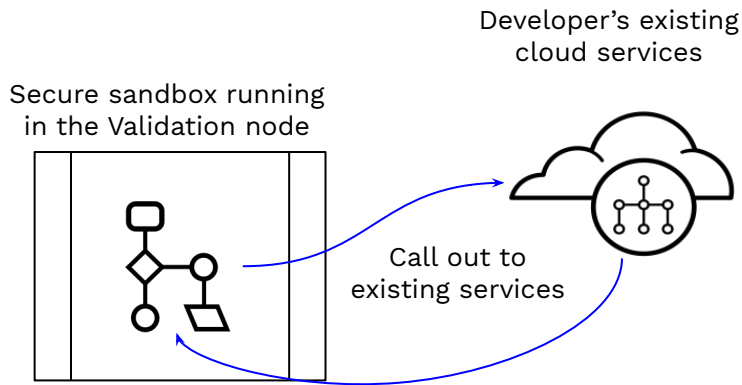
Fully on-chain app execution and app data storage may be impractical, especially when a large existing app is migrated to Storecoin Platform with complex app logic and petabytes of data.

## Self-contained app



Simple, self-contained **existing apps** run fully inside the secure sandbox instantiated in the Validation nodes.

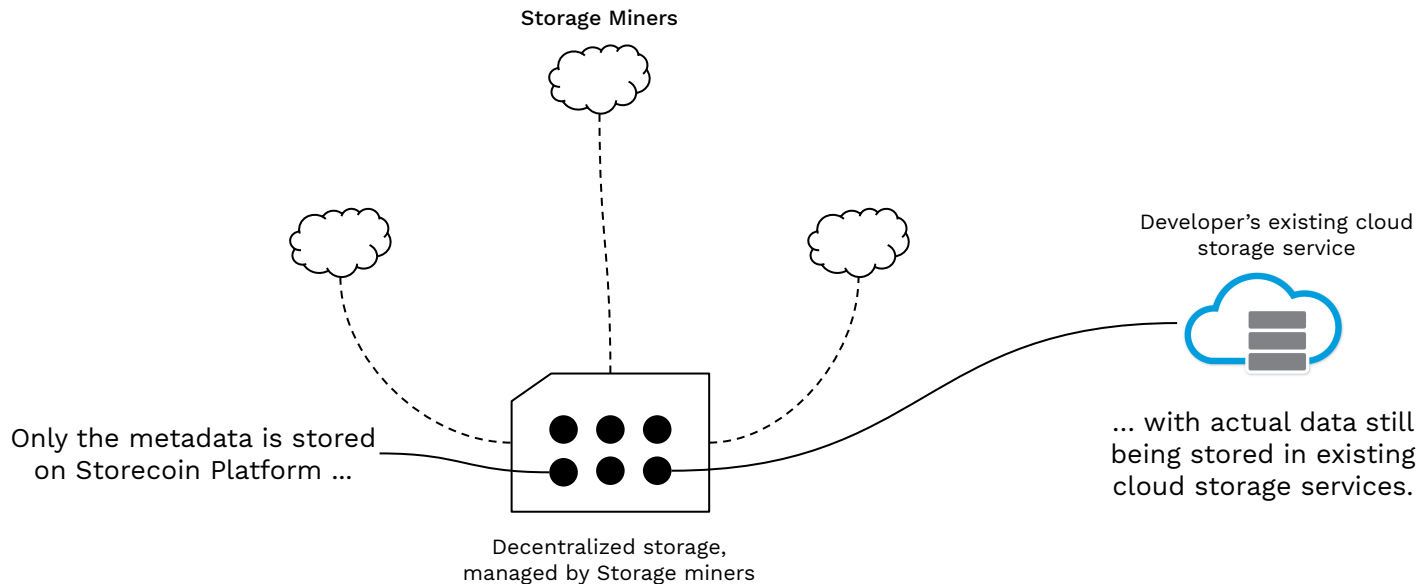
## Complex, multi-tier app



Complex apps may use additional services on developer's existing infrastructure. In this case, the app running inside the sandbox only provides the shell to interface with other services.

## Use case 6 — Migration of an existing app — storage services

Storage can similarly be fully migrated onto Storecoin Platform for small apps or only metadata (*pointers*) to the actual data is stored on Storecoin platform for complex apps with petabytes of data.



This architecture allows for quick migration of existing apps with huge amount of data, without having to migrate all the data first onto the Storecoin Platform.