Modeling, Persisting, and Updating Distributed Transaction State

There is a common theme when developing Hyperledger Fabric applications.

You spend time learning the difference between it and public nets. You stand up the infrastructure, you hit a wall configuring and standing up the network. It has happened time and time again.

Its frustrating.

There needs to be a better way.

We are simply building out International Business Transaction Networks.

We have a fault tolerant consensus driven transaction legers that multiple parties can operate on.

We want companies to be able to use their existing customer and machine data when leveraging these networks. We want it to create a business graph. Similar to google but specifically between parties that are all operating against the same data.

We want to create a permissioned business transactional system that enables companies to model and intergrate business applications.

The state updates that are made on the network need to be reflected in Salesforce as well, this is where there users are. The users don’t need to know about the infrastructure level. They care about assets, they care about the participants in the network that are now in a market.

Blockchains turn networks into markets.

There is a distributed consensus as to all of this.

A distibruted state machine ledger that can be used in conjunction with existing customer data in addition to other third party applications.

How do we connect and update state from salesforce to a Hyperledger network? How do we ensure that all of the parties that are using the network have the same data. How can we ensure that the assets being exchanged the global state of the assets have been agreed upon.

We need an event system. We need to have Platform Events that are subscribed to state changes at the infrastructure level of the Fabric Infrastrucutre.

The Hyperledger Blockchain Application Management Suite addresses these questions:

We are developing an application suite that enables a developer to model and create assets, participants and script logic. These types of assets when created are also created in corresponding objects in the Dapps.ai managed package. Any state changes that happen are registed as Business Network Events and these events can be used in other business processes and applications.