1 Bitcoin Zya Service - Worker

- Handle Block requests

- Load watch lists

  1. Addresses
  2. Transactions

- Send status update when done

- Save requests in a database that meet the following conditions.

  - $(\forall.transactions)(to \in addresses \lor from \in addresses \lor tx \in transactions)$

- Resume blocks where stopped

- Alerts

2 Node responsibilities

The purpose of this node is to listen to requests for interacting a local block (perhaps remote in certain conditions). For example, querying a block for a set of transactions and publish them.

3 Commands that the node handles

- QueryBlock for a blockchain (could be bitcoin, ethereum or tezos)

- Stop processing the node (a general command that should stop the node)

- resume the node.

-   - Add transaction address to a watchlist
    - Remove transaction address to a watchlist
    - Add hash address to a watchlist
    - Remove hash address to a watchlist

4 Design

module Data.Zya.Bitcoin.Common
. . .
newtype BlockQuery =
  BlockQuery { _b :: (BlockHeight, [Address])} **deriving** (**Show**, **Eq**, Generic)

1

5 Block diagram

```
        ┌──────────┐
        │  Block   │
        │ Requests │
        └──────────┘
              │
              ▼
     ┌──────────┐      ┌──────────┐
     │ Workers  │ ---▶ │ DataStore│
     └──────────┘      └──────────┘
              ▲
              │
        ┌──────────┐
        │Watch List│
        └──────────┘
```