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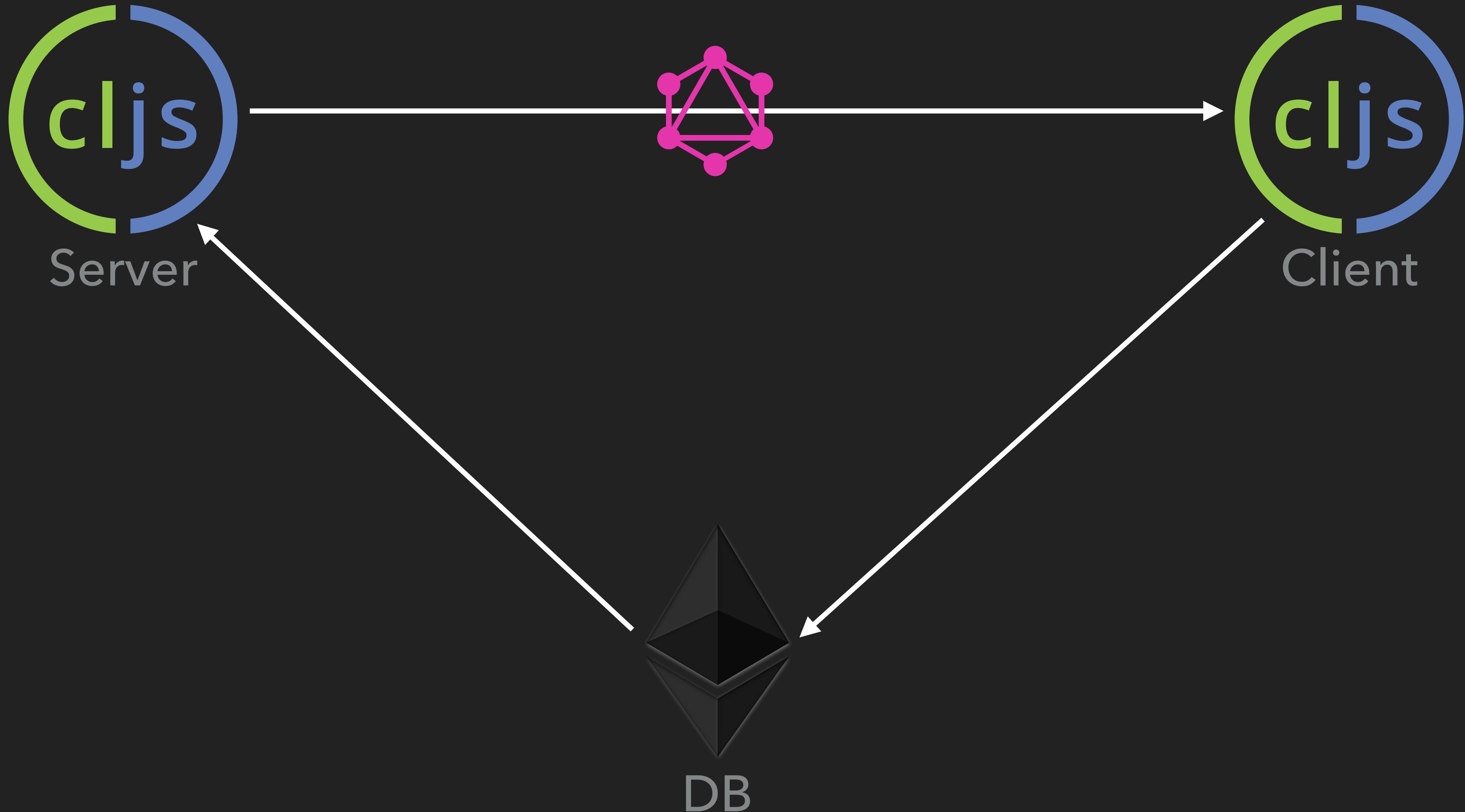
ETHEREUM & CLOJURESCRIPT

(BLOCK)CHAIN REACTION









BLOCKCHAIN

ETHEREUM



GANACHE



SOLIDITY



VM Exception while processing transaction: 💩

```
contract FreeLunch {  
    mapping (string => bytes) freebies;  
    event Freebie(string);  
    function setFreebie(string k, bytes dataHash)  
        public {  
        freebies[k] = dataHash;  
        emit Freebie(k);  
    }  
    function loadFreebie(string k)  
        public view returns (string, bytes) {  
        return (k, freebies[k]);  
    }  
}
```

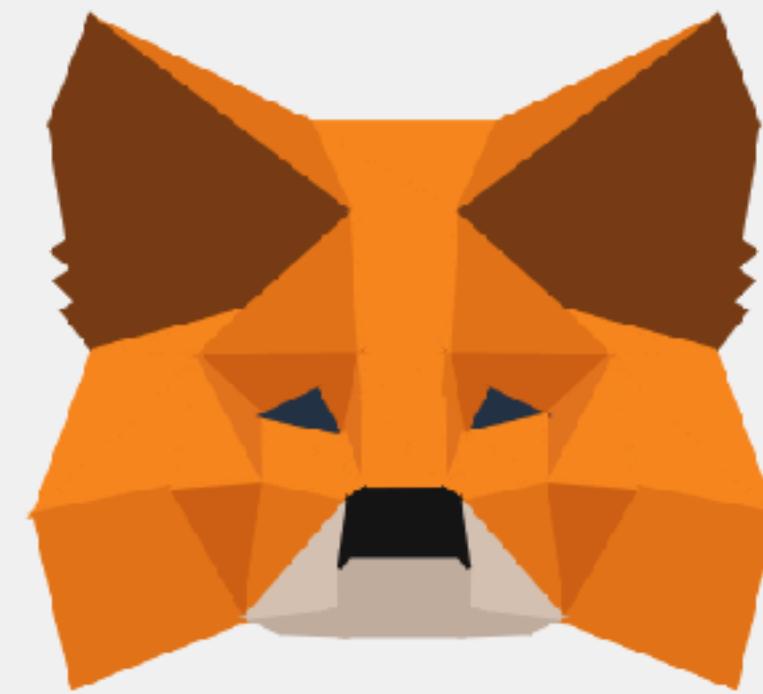
<https://github.com/district0x/lein-solc>

WEB3

- ▶ <https://github.com/district0x/cljs-web3>
- ▶ <https://github.com/district0x/re-frame-web3-fx>
- ▶ <https://github.com/district0x/district-web3-utils>
- ▶ <https://github.com/district0x/district-server-smart-contracts>
- ▶ <https://github.com/district0x/district-server-web3>
- ▶ <https://github.com/district0x/district-server-web3-watcher>
- ▶ <https://github.com/district0x/district-ui-smart-contracts>
- ▶ <https://github.com/district0x/district-ui-web3>
- ▶ <https://github.com/district0x/district-ui-web3-account-balances>
- ▶ <https://github.com/district0x/district-ui-web3-accounts>
- ▶ <https://github.com/district0x/district-ui-web3-balances>
- ▶ <https://github.com/district0x/district-ui-web3-sync-now>
- ▶ <https://github.com/district0x/district-ui-web3-tx>
- ▶ <https://github.com/district0x/district-ui-web3-tx-costs>
- ▶ <https://github.com/district0x/district-ui-web3-tx-id>
- ▶ <https://github.com/district0x/district-ui-web3-tx-log>
- ▶ <https://github.com/district0x/district-ui-web3-tx-log-core>

```
(defn load-freebie [freebie-key]
  (district.server.smart-contracts/contract-call
   :free-lunch
   :load-freebie
   freebie-key))
```

```
(re-frame.core/reg-event-fx
 ::set-freebie
 (fn [{:keys [db]} [_ {:keys [freebie/id]} {:keys [Hash]}]]
 {:dispatch
 [:district.ui.web3-tx.events/send-tx
 {:instance (district.ui.smart-contracts.queries/instance
 db
 :free-lunch)}
 :fn :set-freebie
 :args [id Hash]
 :tx-opts {:gas 60000
 :from (district.ui.web3-accounts.queries/active-account
 db)}]}]))
```



METAMASK

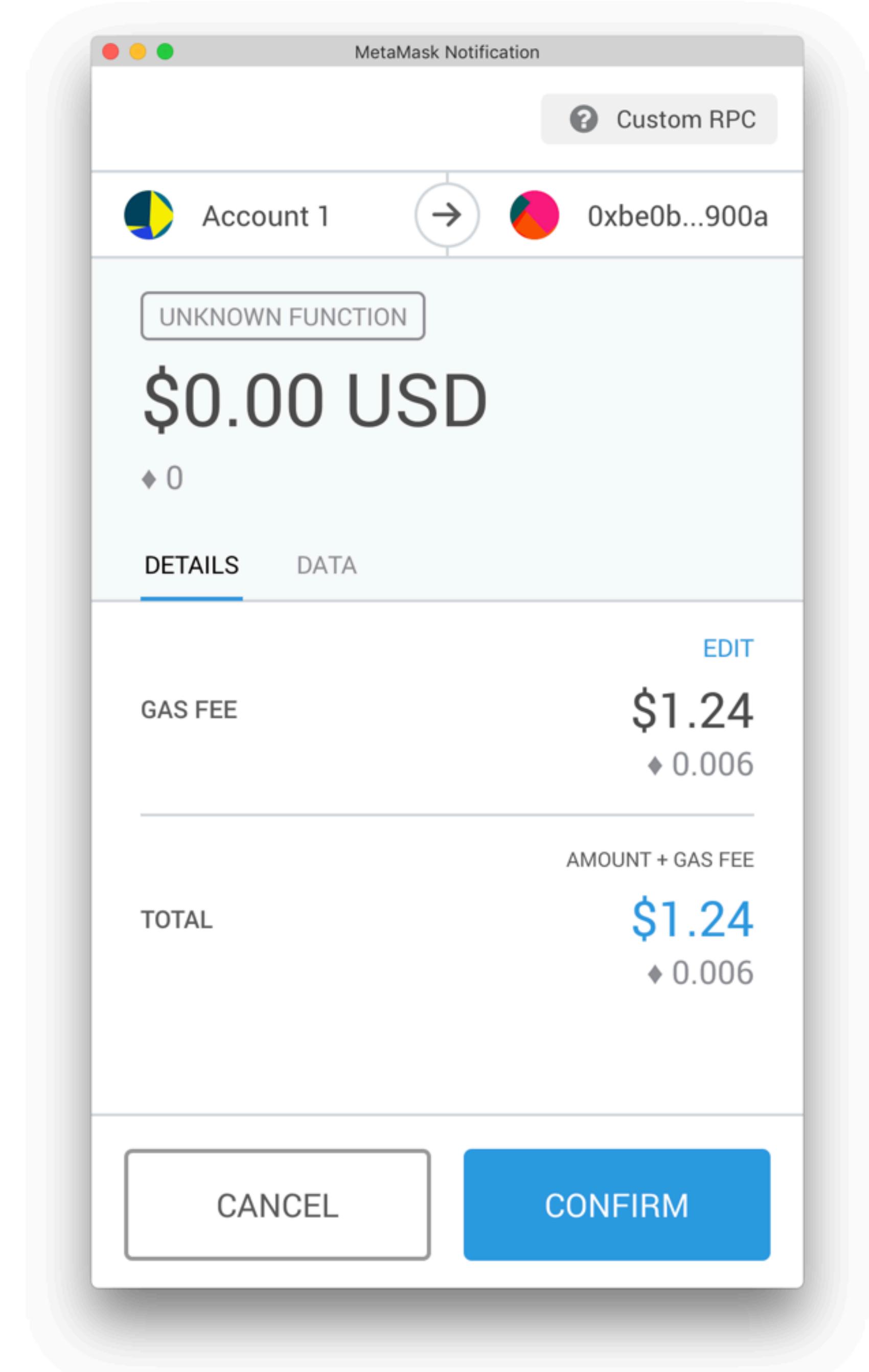
Brings Ethereum to your browser

[GET CHROME EXTENSION](#) ►

Chrome Firefox Opera

OR

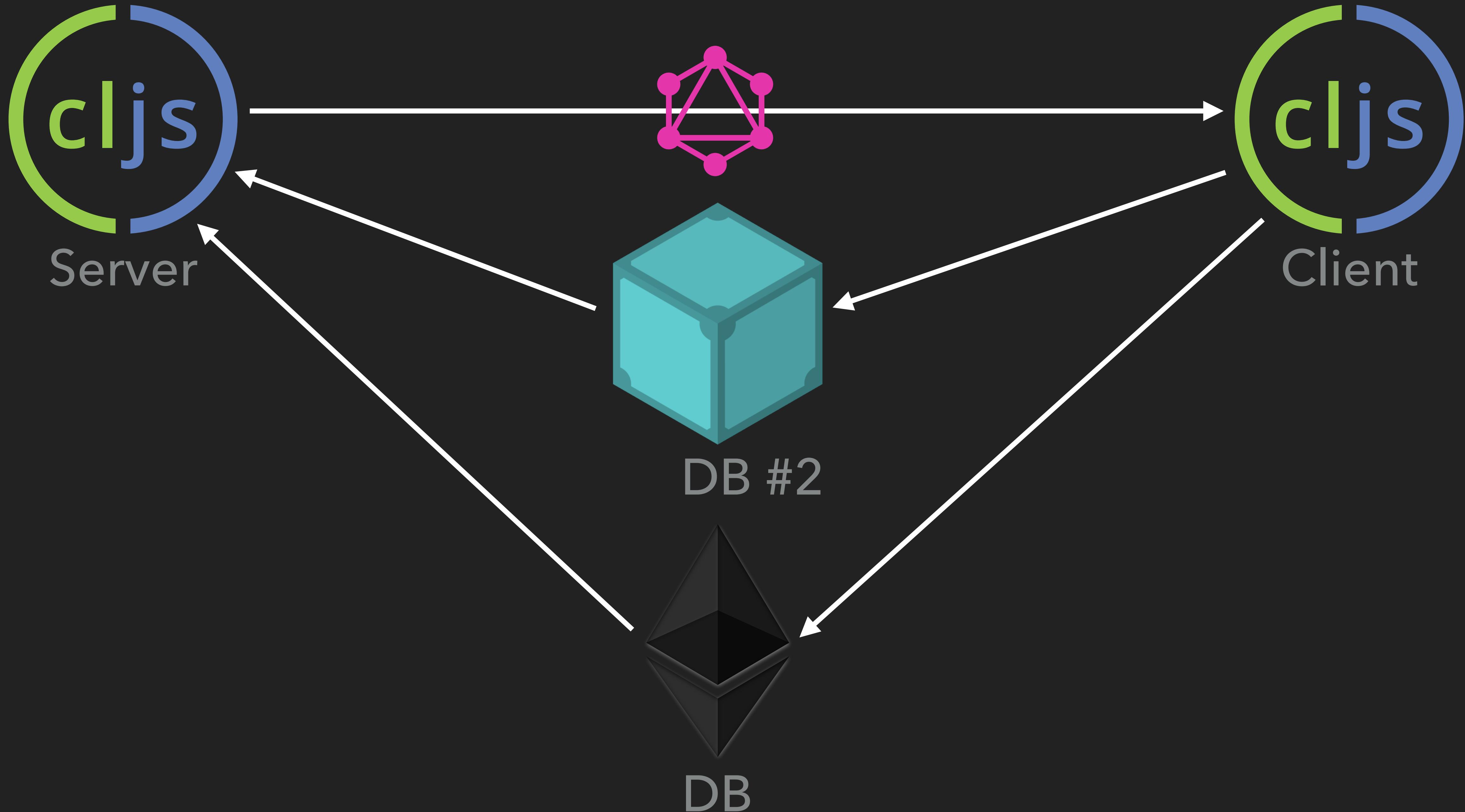
[GET BRAVE BROWSER](#) ►



- ▶ <https://github.com/district0x/cljs-ipfs-native>
- ▶ <https://github.com/district0x/re-frame-ipfs-fx>

IPFS





```
(defn get-ipfs-data [data-hash]
  (cljs-ipfs-api.files/fget
    (str "/ipfs/" data-hash))))
```

```
(re-frame.core/reg-event-fx
  ::add-freebie
  (fn [_ [_ data]]
    {:ipfs/call
     {:func "add"
      :args [(-> data
                    clj->js
                    js/JSON.stringify)]}
     :on-success [::free-lunch/set-freebie
                  data]})))
```

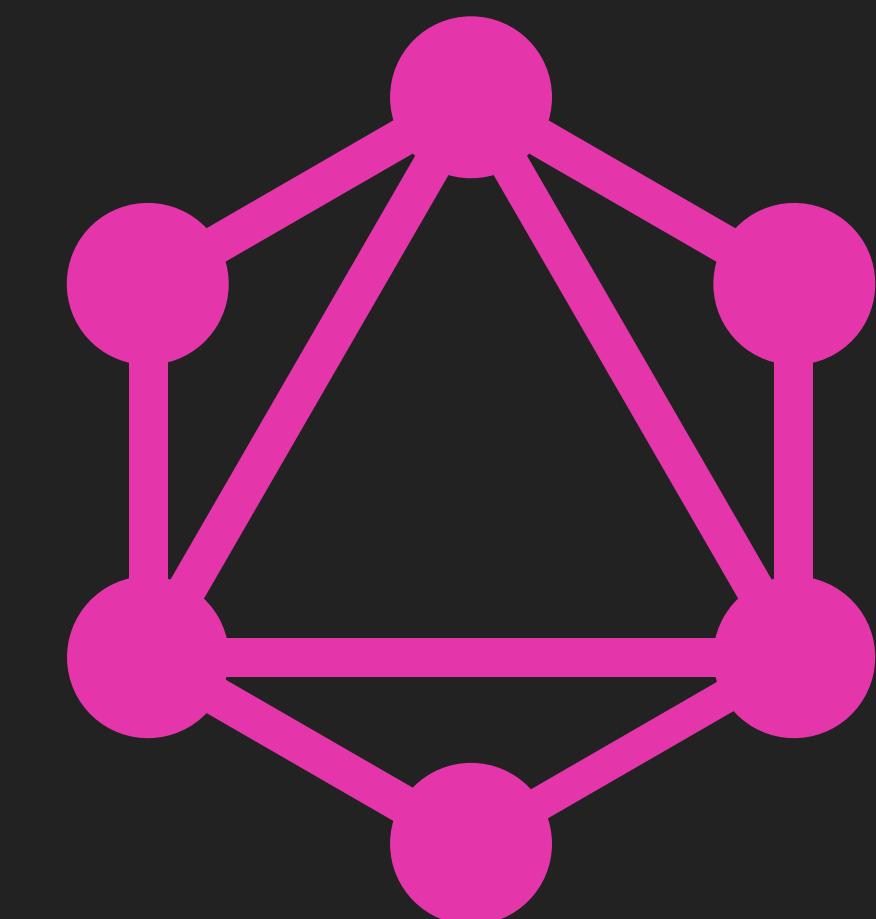
CACHING

```
(defn on-freebie [event]
  (-> event
        :freebie/id
        free-lunch/load-freebie
        :freebie/data-hash
        get-ipfs-data
        (.then db/insert-or-replace-freebie!))))
```

```
(district.server.smart-contracts/contract-call
 :free-lunch
 :freebie
{:from-block 0
 :to-block "latest"}
on-freebie)
```

- ▶ <https://github.com/district0x/graphql-query>
 - ▶ <https://github.com/district0x/district-graphql-utils>
 - ▶ <https://github.com/district0x/district-server-graphql>
 - ▶ <https://github.com/district0x/district-ui-graphql>
-

GRAPHQL





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MAKING JS SIMPLER THAN CLJS

GRAPHQL

GraphQL: Making JavaScript Simpler Than ClojureScript

<https://github.com/DomKM/ethereum-free-lunch>



LEVEL 1½/BALCONY





HOW

WHY

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