# ACEQUIA

Messaging and Data Store

## What is Acequia?

A node.js application server

A Messaging Server

A Data Store

## A Messaging Server

Acequia is a lightweight messaging server which supports 3 different types of socket connections:

- I. UDP via the OSC protocol
- 2. WebSocket via socket.io
- 3. TCP raw socket connection

#### A DataStore

- REST Interface
- Messaging Interface
- File system store currently

# Server Configuration

```
ipAddress: "0.0.0.0"
       , oscPort: 9090
       , wsPort: 9091
       , tcpPort: 9092
       , timeout: 600000
       , express_app: null
       , minify_client: true
       , enableDiscovery: true
acequiaServer = require("acequia").createServer({
    express_app: app
    , oscPort: false
    , tcpPort: false
    , datastore: false
    , minify_client: false
});
acequiaServer.on("refresh", onRefresh); ion);
acequiaServer.start();
```

### Message Structure

- JSON
  - name
  - from
  - to
  - body

#### Web Client Implementation

```
var ac = new AcequiaClient();
ac.on("test", onmessage);
ac.addConnectionChangeHandler(onconnectionChanged);
ac.connect();

cs = ac.createClientStore("/products/");
cs.on("value", function(message) {
         alert(JSON.stringify(message));
});
```

#### What's Next?

- OSC connect / disconnect functionality
- Finish the DataStore interface
- Implement an additional storage medium:
  - redis, mongodb, etc
- Testing, Testing
- Channels
- Binary Data
- Authentication / Authorization

#### References

- https://github.com/prgsmall/acequia
- https://github.com/prgsmall/santafe-autobus