

Milestone 3: Green Button Alliance

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Agenda

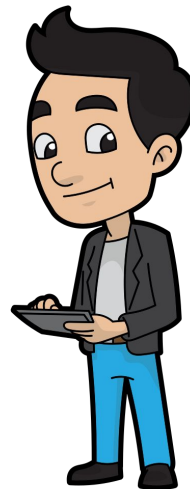
- Story
- What We've Done
- What Needs to be Done
- What We're Handing Off
- Client Database
- Lessons Learned





Third Party Usage

Mr Third Party would like to utilize data from energy providers to create a leaderboard of who uses the least energy.





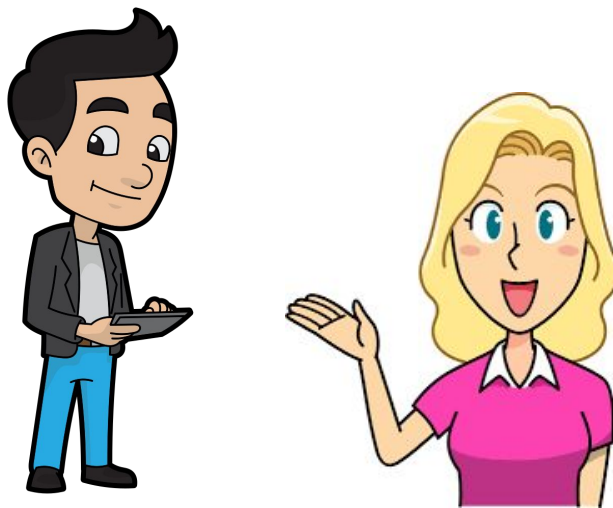
Customers

Mrs. Customer wants to participate in this energy leaderboard.

Mrs. Customer tells Mr. Third Party she wants to participate on his energy leaderboard.

Mr. Third party says “Great! Go ahead and contact your energy provider and authorize me to look into your energy usage data”

Mrs. Customer contacts her energy provider.

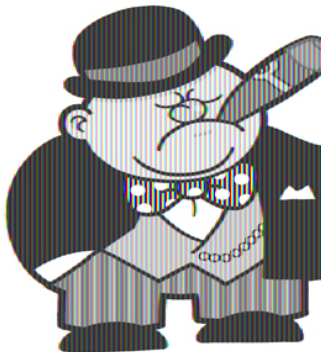




Energy Providers

Mr. Energy Provider receives a request from Mrs. Customer to allow her data to be used by Mr. Third Party.

Mr. Energy Provider says “No can do! We don’t have a data standard to transmit the data in.”





What We've Done



Milestone 1:

Created plan of attack for the development of GBA's Energy Data Application.

1. Review DataCustodian Database
2. Engineer Client Database
3. Update Spring Framework
4. Implement Spring Security (OAuth 2.0)
5. Create Spring Application to test data



What We've Done



Milestone 2:

Reviewed and Analyzed DataCustodian Database.

Problem: Can this database be simplified with relational tables?

How?

- Utilize a database with tables governed by primary and foreign keys.
- Remove link columns and link tables.
- Simplify table relationships whenever possible.



What We've Done



Milestone 3:

Gathered business requirements and created Client Database model.

- Combined tables when possible to reduce overall database complexity
- Retained necessary data columns as specified by the ESPI
- Created hand-off documentation



What We've Done



Results

- Received NAESB schemas
- Analyzed Data Custodian database
- Provided feedback on Data Custodian database
- Optimized Data Custodian database
- Gathered business requirements for Client database
- Created Client database model



What Needs to be Done

- Implement database on server
- Load test data from energy service providers
- Create application to interface with database
- Practical testing with REST technology





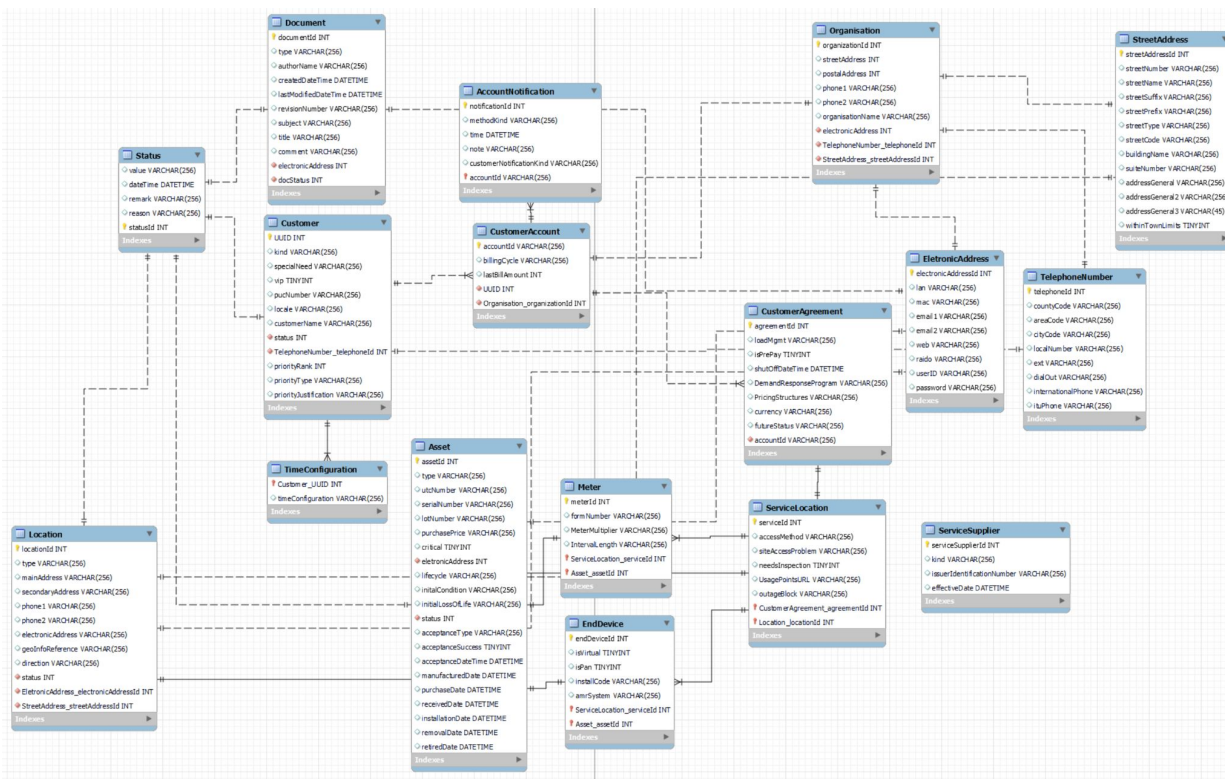
What We're Handing Off

- UUID vs Id analysis
- DataCustodian database recommendations
- DataCustodian database model
- Client database model
- Documentation about Client database



Client Database

20+ -> 17 tables





Lessons Learned

- Consulting is difficult
- Adhering to standards creates new obstacles
- Scope and business requirements may not line up
- Final project may be different from initial plan

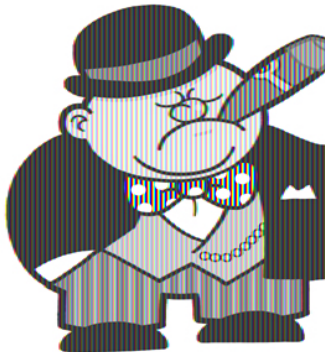




Happy Ending

With the database from UTDsolv students...

Mr. Energy Provider and Mr. Third Party can now communicate and share Mrs. Customer's data!





Thank you Don

For being an awesome project sponsor and helping us navigate the development of this project!

