BikeSmart

Putting a Bike on the Internet

Joel Dick · Chris Karcher · Saili Raje
Duncan Sommer · Oliver Townsend
The INTERNET of THINGS
BikeSmart
The Connected Bike
System Design
The Bike

Google Location API

Bluetooth Low Energy

Cellular Data Connectivity
Bike Hardware

Android Mobile Phone

Arduino, Bluetooth & Peripherals

Speed & Cadence Sensor
Backend

Parse
The Cloud Application Platform
Parse Backend Database ER Diagram

**Bike**
- bike_id
- bike_name
- bike_photo
- bike_description
- current_loc
- private_flag
- locked_flag
- last_user

**User**
- user_id
- active_bike
- bikes_owned (bike_id)
- bikes_used (bike_id)
- default_bike_id (bike_id)
- groups
- friends
- notifications
- messages

**Group**
- group_id
- bike_id
- group_name
- admin_id (user_id)

**Owned/Owned by**
- Has/is part of

Treadsetters
Demo