Sample M2M Use Cases for M2M Foundry Hackathon

**-Construction Equipment Market Place**

Late Saturday night, an expensive piece of mobile earthmoving equipment leaves the construction site of JD Peters Construction Company. As it moves down the road it crosses an “electric fence” which triggers an alert at JD Peters security. Due to the day and time, the alert is routed to JD Peters security division’s central computer which identifies which staff members are online. A link with the event description and equipment location- depicted on a map is routed to the security staff member closest to the site who then can make a decision to travel to the site himself, contact police or shut the equipment off remotely.

**Smart Grid**

Case 1 – The third shift manager at a utility electric distribution monitoring center notices alerts going off on the voltage monitoring equipment at an electric substation. He understands that voltage alerts can lead to wide area power outages, damage expensive transformers and result in electrocution.

He actives the video camera in the substation yard and notices a man sawing off a thick copper grounding strap.

The supervisor accesses the supervisory control and data acquisition (SCADA) system and brings up a map of the substation and determines that the grounding strap only effects equipment that manages the power to the southeast side of town.

Information is sent to the local area maintence group to make a decision, call police to prevent the man from cutting off the copper strap eliminating electrocution, isolate the equipment that is dependent on the copper grounding strap, turn down voltage so the equipment can operate without electrocuting the man, or turn power off altogether.

Case 2 – Millions of dollars can be saved by the average person nationally through energy conservation. The problem is that few individuals have access to their energy usage, understand how to save energy or how much money they can save.

That has changed recently through the federally supported GREEN BUTTON initiative. Under this initiative, all utilities must make available residential metering data information so innovation can occur faster by having standardized electric meter consumption. With standardized date, developers can create easy to use mobile consumer applications that work on AT&T smartphones. The application compares energy usage one day at a time, one week to the next and one month to the next. Correlates the usage to the local utility rate and indicates how much money is used every day, week and month based on their consumption patterns. Offers simple suggestions to reduce energy consumption and indicates how much money they will save daily, weekly, monthly and annually.

**Usage Based Insurance**

John has lowered his insurance rates 10% this year by allowing his insurance company to track his location, mileage and speed when he drives. He simply downloads an application to his phone and launches it when he drives. The application notifies him if he is driving outside of acceptable parameters. John logs in to track his usage.

**Condition Sensitive Cargo**

Bob ships a container of specialized material from one airport to another. Tracking devices alert him of arrival at the airport but a third party data feed lets him know the location of the airline, This not only helps his partner time pickup on the other side but another data feed alerts them when the container is loaded onto the baggage conveyor belt at the airport.