

BEYOND THE SENSOR

IOT BUSINESS MODELS

Presented by Gary Howell
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by Gary Howell, Founder

Presenter's Notes

BUSINESS MODELS

“ Creating, delivering
and capturing
economic value ”



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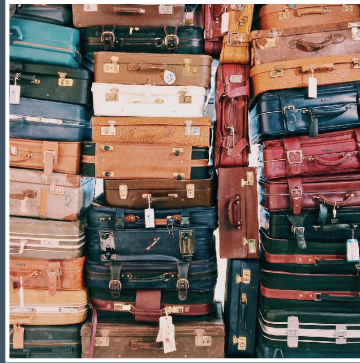
Business Models

- While getting data from the sensors is important, understanding how the data adds value, within the context of a suitable business model, is vital for success
- Understanding the value for your customers and business is more likely to gain support within your organisation for the change
- It will also make pitching the product or service easier

MODEL 1: REVENUE SHARING

Luggage track and trace

- ④ Happier customers
- ④ Recurring revenue for both airline and IoT provider
- ④ Mobile technology for world wide coverage



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Revenue Sharing - Luggage track and trace

The problem

- Lost luggage costs airlines a fortune.
- The repatriation costs and customer dissatisfaction are detrimental to the company and brand.
- Heavy use of call centre resources whilst dealing with the loss.

The solution

- Add active tracking tags to checked-in luggage.

The benefits

- Happier customers.
- Prompt repatriation of luggage to customer.
- Less call centre time through automated customer updates.

The value

- Airline receives recurring revenue by charging regular customers while adding value to business class customers. Call centre resources reduced.
- IoT provider receives percentage of recurring revenue for supplying and running the system plus perhaps a bonus for every repatriated item.
- Customer satisfaction increased.

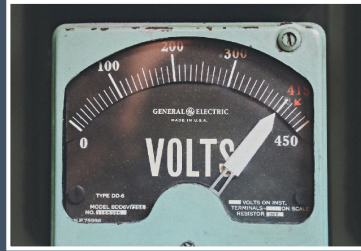
Technologies

- GPS
- Mobile Modem
- Bluetooth (BLE) for local tracking (extra service)

MODEL 2: COST SAVINGS SHARING

Energy saving through monitoring & control

- ⑥ Customer saves money, becomes greener
- ⑥ IoT provider gains both upfront payment and recurring revenue
- ⑥ Customer savings greater than system costs



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Cost Savings Sharing - Hive Connected Home

The problem

- Home owners don't know where their energy is used
- They are not proactive at adjusting heating levels or switching things off
- The hidden use of electricity is a mystery to most

The solution

- Install a connected home system like Hive which monitors energy usage and offers control of appliances

The benefits

- Helps customers to be more energy efficient

The value

- Provider gains both upfront payment for hardware and a recurring monthly fee
- Customers save energy costs which hopefully is more than the cost of paying the provider
- Environmental benefit by reducing energy usage

Another Example

- Smart Bin Collection (especially recycling) - cost savings for both contractor and council plus environmental benefits as bins are only emptied when nearly full

Technologies

- LoraWAN
- Zigbee
- WIFI

MODEL 3: PRODUCT SHARING

Car hire by the minute

- 1 Customer pays for usage only
- 2 Car hire company gains through economies of scale
- 3 IoT provider gains recurring revenue



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Product Sharing - Car hire by the minute

The problem

- Often customer requires car for single journey or round trip for weekly shopping trip.
- Cost of daily car hire prohibitive.
- Customer pays extra for fuel and insurance.
- Inconvenient pick up/drop off locations.

The solution

- Cars fitted with technology to allow self-service based on booking.
- Car hire company distributes cars around a large city.
- Customer books using app and picks up the nearest available car.
- Phone used to unlock/lock car.

The benefits

- Customer benefits from all in one cost, relatively lower costs compared to daily hire.
- More convenient for customers.
- Hire company able to utilise vehicle stock more often, with more customers per day.
- Hire company receive live information about state and location of vehicle.

The value

- Customer gets cheaper car hire for when they need it and can collect and leave vehicle away from hire company premises.
- Hire company gains value from economies of scale (capital & operational) and able to charge more per min than equivalent daily rate.

Technologies

- GPS, Bluetooth Low Energy (BLE)
- CANBUS (for vehicle data)
- Mobile modem for tracking, booking and general operation

MODEL 4: PRODUCT AS A SERVICE

Use of expensive machinery as a service

- ④ Customer benefits from little or no downtime
- ④ Provider gains recurring revenue
- ④ Major breakdown costs avoided



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Product as a Service - Use of expensive machinery as a service

The problem (MRI Example)

- Expensive capital costs.
- Often separate hardware supplier and maintenance company.
- Unexpected breakdowns.

The solution

- Hospital pays monthly fee with inclusive maintenance and capital cost contribution.
- Maintenance company leases machines from manufacturer.
- Utilises remote diagnostics and reporting.
- Minor servicing and repairs based on machine use/status and predictive failure analysis to prevent major failure and outage.

The benefits

- Customer pays fixed monthly fee without concern for unexpected repairs.
- Customer experiences reduced or no downtime.
- Maintenance company manages its own maintenance and repair costs by utilising IoT data directly from the machine rather than waiting for the machine to break down.

The value

- Customer machine costs are fixed & can better schedule patients due to guaranteed availability
- Maintenance company gains flexibility by owning the lease on all machines, gains recurring revenue and is able to make savings via proactive maintenance scheduling
- Manufacture can also make on-going product improvement through data analysis.

Technologies

- Various sensor technology appropriate for machine
- Fixed line Internet connectivity (no radios)

NEXT STEPS

- 1 Identify potential 'value' income streams
- 2 Test assumptions with trials and evaluate
- 3 Ensure business owner/director support
- 4 Get professional help if needed
- 5 Robust implementation is critical



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Next Steps

- Identify value for you and your customers - win/win is easier to pitch
- Existing sensors and back-end systems can often be used to test assumptions before investing in a custom solution
- Evaluate results of trials, refine and if needed run another trial
- Support from the top is essential, especially if existing products are to be re-designed
- While internal teams might be excited about working on IoT projects, professional help in terms of mentoring or outsourcing can be useful
- If using free services such as The Things Network, check that it will scale and provide the level of service required to support your solution

THANK YOU

Gary Howell
gary@morganwalsh.co.uk
01437 563650
www.morganwalsh.co.uk

Presenter's Notes

Thank you for attending.

If you have any questions please get in touch with
Gary Howell, gary@morganwalsh.co.uk or 01437 563650