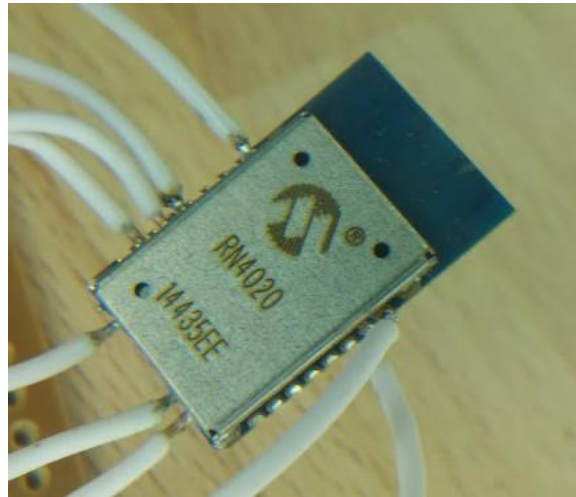




Future-proof your
network today to
support IoT tomorrow.

Hello!

A little about me...



Images by Gary Barnett: Public Domain

Hello!

A little about me...



<http://www.changelondon.org/>



<http://www.airsensa.org/>



<http://www.weatherfile.com/>

IoT: What

A working definition...

The IoT is the application of connected sensors and actuators that allow us to monitor and influence the environment, the things that exist within it, and the people that act within it.

IoT: Why?

Where are the benefits?

Doing the old stuff better



CC BY 2.0 Gary Barnett



Public Domain by KUKA Roboter GmbH via Wikimedia Commons

Creating new opportunities



"Port of Singapore Keppel Terminal".
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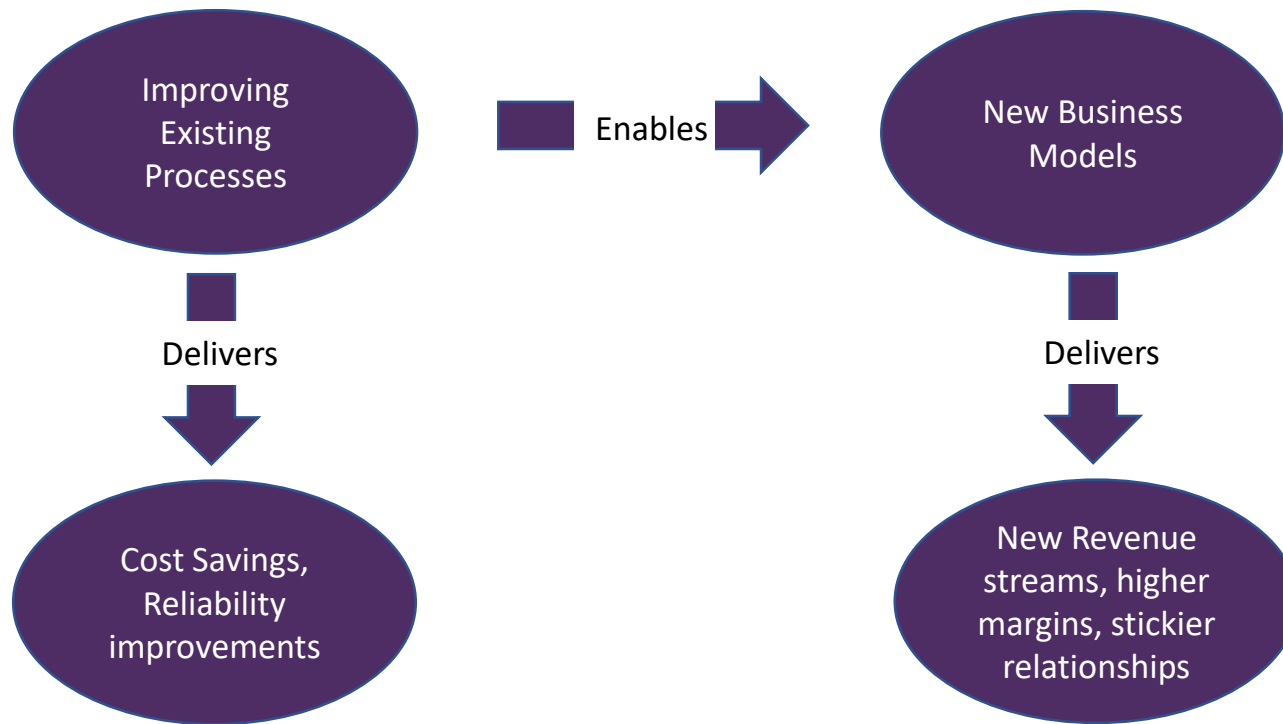
Nest thermostat. CC By 2.0 grant sewell via Flickr



CC BY 3.0 Desmondma via Wikimedia Commons

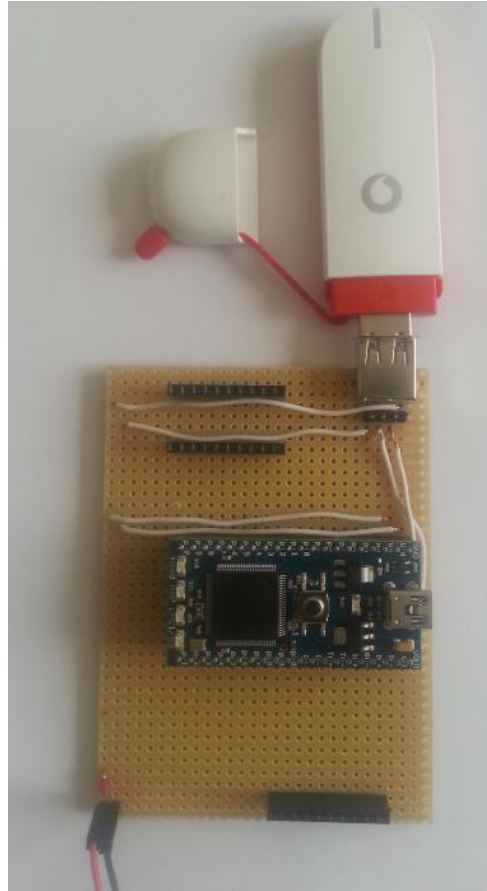
IoT: Why?

Where are the benefits?



IoT: How?

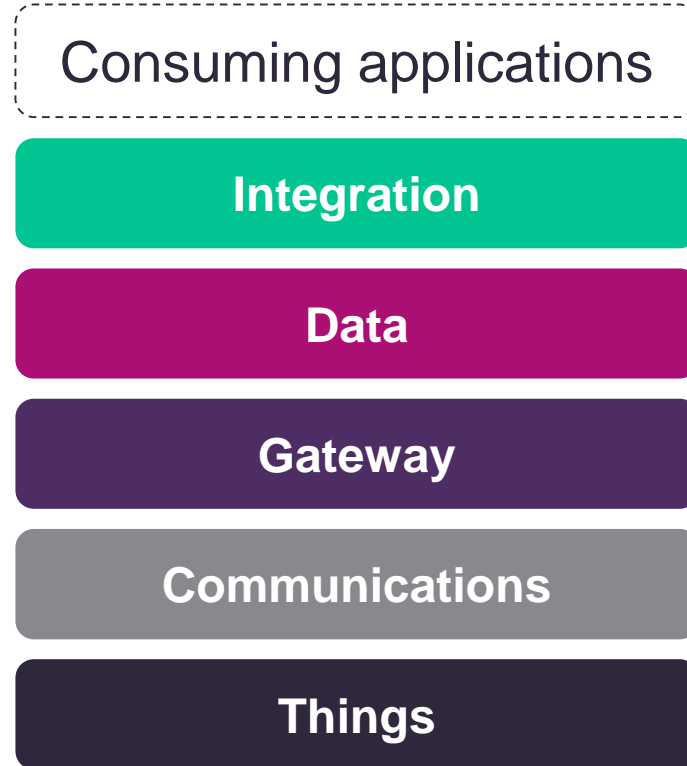
How hard can it be?



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IoT: How?

A gnarly technology ecosystem



IoT: How?

The number 1 thing

Security
is the number 1
challenge

Data analytics
is the number 1
challenge

Privacy
is the number 1
challenge

Integration
is the number 1
challenge

Power management
is the number 1
challenge

Bandwidth
is the number 1
challenge

Industrial design
is the number 1
challenge

Processor selection
is the number 1
challenge

Device
management is the
number 1 challenge

Public Policy and
Regulation is the
number 1 challenge

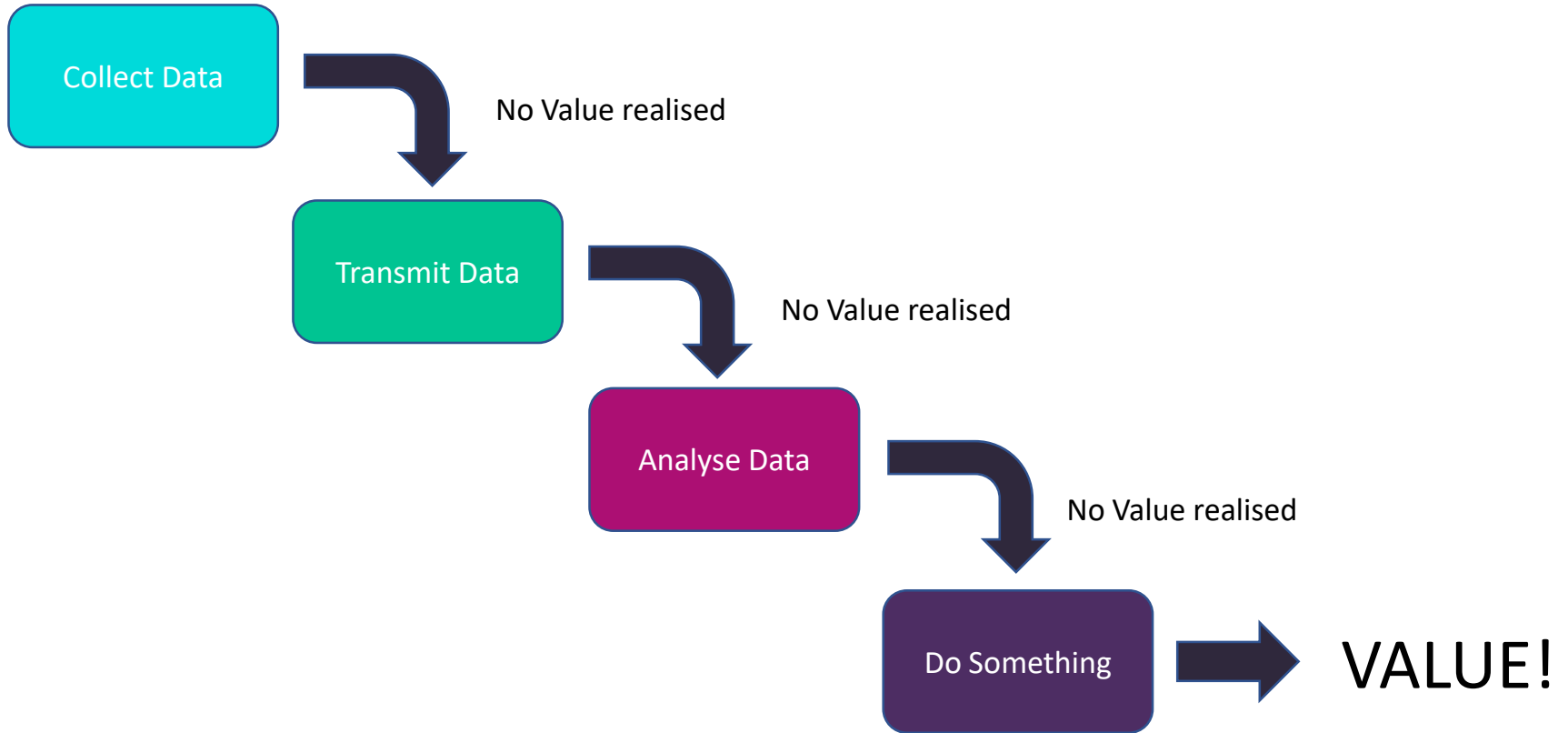
IoT: Why?

Where is value realised?

There is ZERO value in IoT until some action is provoked as a result of the data you collect and analyse

IoT: Why?

Where is value realised?



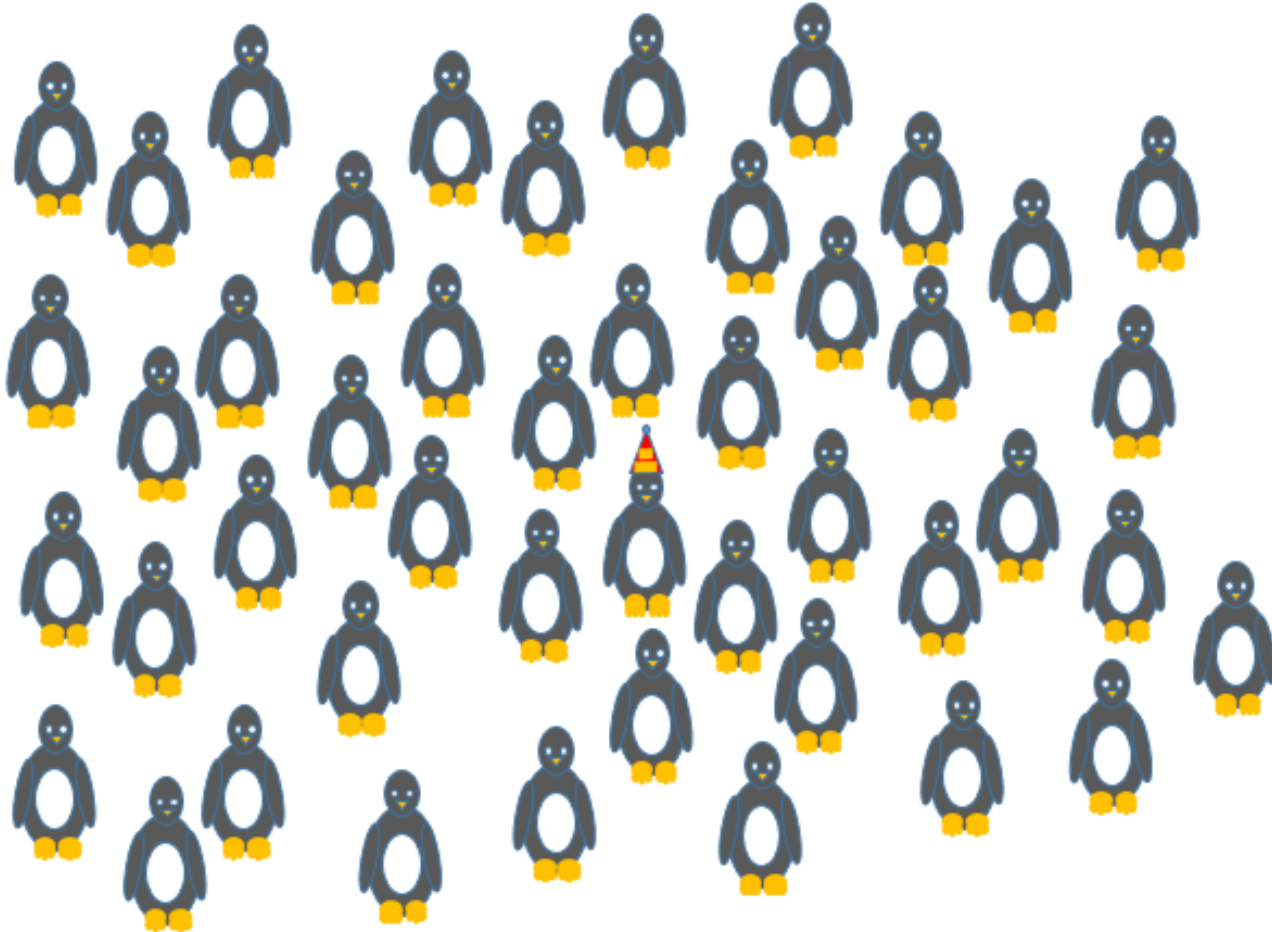
IoT: It's all about data

Let's talk about data....

Air Quality Network	< 1kB / Sec	WiFi, LPWAN, Cellular, Fixed
Mass Transit Telemetry	< 1MB/ Sec	WiFi, Cellular, Fixed
CC TV	< 1GB/ Sec	WiFi, Cellular – to Hub Fixed to center
Radio Telescope	< 5.2TB/ Sec	Fixed with edge processing

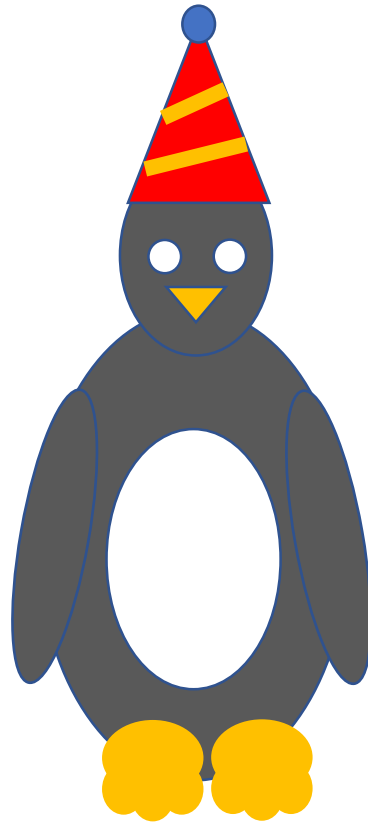
IoT: 99% of data is boring

The secret lies in “little data”



IoT: 1% of data is interesting...

The secret lies in “little data”



IoT: The role of network providers

Transmit Data

➔ Bandwidth

Analyse Data

➔ Cloud connectivity

Do Something

➔ Enterprise connectivity

IoT: Now, Tomorrow, and Beyond

It is time to get started

Now

- Process improvement
- Retrofit
- The “Grimy IoT”

Industrial control
Remote monitoring and management
Cost saving

Tomorrow

- Business model extension
- Designed into the solution
- The “Shiny IoT”

As-a-service
Ecosystem integration
New revenues

Beyond

- All new business models
- IoT is the solution
- The “Pervasive IoT”

Is-the-service
Holistic integration
Your revenues

The Evolving Role of the network

It is time to get started

Now

- Data carriage
- Client/Server

Carriers are a bit pipe

Basic fee / mb

Cost

Tomorrow

- Large volumes of data
- Processed on PaaS/IaaS

Carriers are a connector

Data and connection fees

Integration

Beyond

- Data and processing
- Processed at the edge and within the network

Carriers as platform

Holistic service

Innovation



Thank-you

gary.barnett@globaldata.com

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www.globaldata.com/technology/research-areas/global-it/internet-of-things-ecosystem/