

## Intelligent Devices for the Electrical Internet of Things

*Devices enabling the Electrical Internet of Things to make buildings work*

### So, what are the Problems with your electrical supply?

The problem with the electrical supply in your building is that its designed to protect. Its centralized architecture of circuit breakers and distribution panels do **not** tell you the health of your electrical network and do **not** easily accommodate new functionality or configurations.

Breaking a circuit results in a power outage with significant loss of revenue and damage to customer satisfaction - *When the circuit breaker trips it's too late!*

How is energy being used? At best you know how much energy a department or floor is using, but you **cannot** see the energy use by appliance or user type and know when the energy is being used? *Today energy informatics are primitive and lack detail*

What happens when the building use evolves? Today Impossible to configure power control at the point of use, you can't simply reconfigure the wiring - *All that Expense, Downtime and Disruption*

### What about the appliances we use?

Domestic Appliances are identified as major consumers of electricity. Product standards such as energy labelling have focused in Europe on increased efficiency but Demand Side Response is not easy to implement today. In the residential setting, it's almost impossible to do.

*Power Companies want DSR to balance their networks and realize the true benefits of the Smart Grid*

Most Domestic Appliances cannot be remotely serviced or provide early warning of failure. Appliance *insurers would value early warning and diagnostic data*. Enabling them to offer additional services to customers.

### What about our future?

Governments globally are faced with an aging population due to advances in medical care and technology. The existing social systems are being challenged. Most countries care strategy is to keep people in their own homes for longer but how do you care individuals and identify their needs.

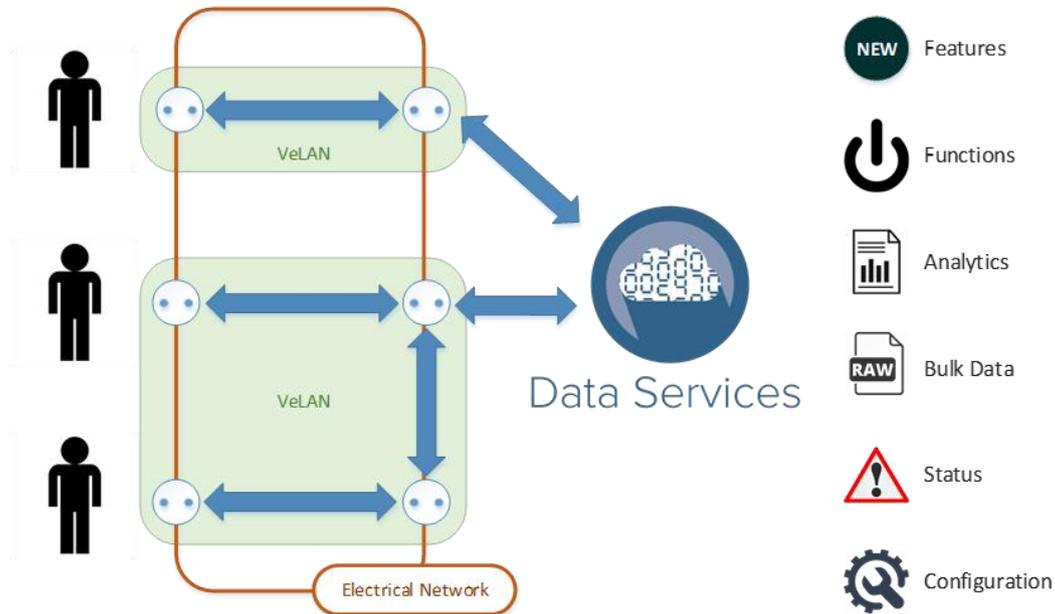
*Managing Care costs is Big issue and optimizing care packages is essential.*

### The Solution

C&S intelligent devices control the electrical network by creating virtual power networks which adapt to the users changing requirements and function. They deliver electrical power as it is required whilst monitoring the performance of the electrical supply.

C&S intelligent devices are fitted to the wiring network i.e. your socket outlets. These devices not only monitor your energy usage but also measure the health of your electrical connection, and identify potential faults before the circuit breaker trips.

They are networked together to form virtual networks of devices that can share data to optimize your energy usage and control when energy is consumed by a user, an appliance or by a function.



We do this by collecting and analysing the electrical data, enabling new functionality, features and offering services from 3<sup>rd</sup> parties to improve the security of your electrical supply and reduce your costs.

These intelligent devices are **NOT adaptors which can be removed or damaged**. They are part of the wiring network, hidden from view and can be retro fitted to any socket outlet, so *you do not have to throw away or use up space in your existing sockets*.

## Why Now?

Converging Technologies such as WIFI, Cloud Computing, Voice Command Products and Smart Phones, mean that **NOW** is the time for a revolution in the way we manage energy. Our products will enable the growth in many different but connected markets

To find out more contact C&S at [info@candstech.com](mailto:info@candstech.com)