

OFGEM Consultation

OFGEM Consultation - Smart Metering Implementation Programme

Introduction

On 27 July 2010, Department of Energy and Climate Change (DECC) and Ofgem published jointly a Prospectus containing proposals for the delivery of electricity and gas smart metering in Great Britain. In addition, a set of supporting documents have been produced by Ofgem and DECC which are published alongside this Prospectus.

This document is intended to provide Inside Contactless' thoughts in regard to consultation questions. A 1st release has been published on the 28th of September with the name of Atmel. This is a 2nd release which provides with both 1st and 2nd groups of questions.

INSIDE is transforming the ways in which people make payments, present identification credentials, and exchange information. As a leading provider of secure semiconductor products, our customers rely on our broad product portfolio, technology vision, and deep market relationships to help them successfully bring to market a wide range of payment, ID, access, transit, and embedded security products.

This document is written by Secure Microcontroller Solution division which originally designed and manufactured secure microcontrollers for the smart card application. Thanks to this experience, we developed dedicated microcontrollers targeting industrial applications such as: USB tokens, Cartridges, IP protection, White goods, Femtocell, Health Care, Secure Storage and Smart Grid.

Inside Secure Microcontroller Solutions division would like to contribute as security expert in all security related technical consultation questions and technical committees. We think security is not a single feature, but a process, starting from requirements and ending at smart meter exploitation. We experienced several systems considering security after deployment, which in all cases requested heavy redesign and huge maintenance efforts. We would contribute with a fast and reliable deployment objective.

Important note to reader: Inside, as a technology provider, is considering its scope of expertise limited to security.

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1. Generic Drivers of Security - Deployment

Before starting the analysis of smart grid system, it is important to summarize which are the drivers to increase security level of a system.

Here below figures is describing business objectives per Robustness vs Order of frequency.

Histogram - Mindset in Security Deployments



1. **Compliance** – Businesses will often only deploy certain technologies if they are forced by regulators **and** if these regulations have penalties that are severe (e.g. they can be shut down or shut out of business, fined, sued, etc.). Regulations alone, almost invariably do **not** yield effective security, they only protect against well known, easily executed attacks – the hackers are much more sophisticated, evolve quicker and are more determined than regulators by an order of magnitude.
2. **Marketing perception** – Many security products are sold on the promise of security when in fact the security is not used or is not effective. Examples are consumer biometric device and Electronic Voting Machine Security, both of which used robust security components, but ended up being implemented ineffectively and typically served to provide the illusion of security (widely known in the industry as “Security Theater”) for the purpose of giving the impression that something was being accomplished for funding or marketing/political reasons.
3. **Liability Protection** – Often security technologies are deployed to “put something in place” in order to again, create the illusion of security, but for protecting an organization against liability. Unfortunately, this is a common practice, and ironically, and sadly, ends up yielding less security than if the technology was NOT deployed because it yields a false sense of security. An example is preventing counterfeit laptop batteries from catching fire and taking down an airplane – minimum security measures that were implemented made it cumbersome for an individual consumer to clone a battery, but not an organization who could stand to make quite a bit of money from selling counterfeit batteries.
4. **Saving money or Property** – There are many applications where the application of security has a clear and direct positive ROI that is often recognized at the CFO and sometimes even CEO level. Examples are subscription services, licensing, anti-cloning, financial transactions, and protecting networks. Often these technologies are not deployed until the company, or one of their competitors, has experienced severe financial pain due to a lack of security. In some cases insurance companies will insist that their customers deploy certain security technologies to become insurable or to reduce their rates.
5. **Saving Lives**- Examples include military, homeland security, medical

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2. Consultation questions (1st group: 28th of Sept'10)

2.1.

2.2.

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2.3.

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3. Consultation questions (2nd group: 28th of Oct'10)

3.1.

3.2.

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