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Assuring a successful Smart Meter roll-out

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A Business White Paper

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Contents

The Smart metering roll-out challenge	02
Negative customer behaviour risks	03
Win, Win, Win - Appointment experience, cost, customer value	03
“Not at Home” impacts Engineer costs	04
Inbound calls can make customer service costs spiral out of control	05
Customer dissatisfaction can destroy future customer value potential	05
Deploying industry leading Customer Appointment Management (CAM) and Scheduling Technology is the way to assure a successful Smart Metering roll-out by offering and delivering exemplary customer experience	06
What is needed is self-learning and predictive intelligence built into the appointment system	08
In conclusion, implementing industry leading CAM technology will enable suppliers to maximise the benefits from, and minimise the costs of, and risks inherent in, Smart Meter Roll-out	09
ETAdirect from TOA Technologies	10

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The Smart metering roll-out challenge

It is arguable whether UK Smart Metering roll-out is about to begin or has already started in earnest. The government driven programme has now been agreed in principle although uncertainty still exists regarding the end date of the implementation phase. Originally targeted for 2020 – the coalition is striving to bring this forward to 2018, or maybe even 2016.

During this programme we will see the installation of nearly 50 million gas and electricity meters, 28 million communications hubs and 28 million in-home display devices.

Why can it be argued that the process has already begun?

The answer is British Gas's pre-emptive action to launch an initial wave of 2 million installations across the UK over the next two years of which more than 350,000 have been completed to date.

Whether you are minded to say the program has commenced or not this represents the biggest service engineering challenge the industry has faced since the introduction of North Sea Gas. Indeed with the number of households on the mains gas network now compared to the 1960's and the inclusion of electricity and telecommunications in the programme this programme is indeed more than twice the size of the North Sea Gas roll-out.

This means the roll-out of Smart metering is one of the industry's most important touch points with consumers. Success or failure in implementation will leave an indelible mark on customer's perception of every company involved and will impact on their ability to retain and develop both their energy and energy services offerings.

If the consumer is left with a positive impression during the Smart Metering switchover the ground will be fertile for the development of the discourse on energy services with householders....with all the business benefits which can accrue to both parties as these products and services are taken up by consumers.

If the consumer is left with a negative impression the ground may become barren and the energy services business opportunity lost for the energy supplier concerned.

Given the importance of energy services in the future energy landscape successful smart meter roll-out is a "must" if a supplier is to be able to succeed in the medium and long term.

Failure will hand the competitive baton to other players.

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Negative customer behaviour risks

Just as was the case for North-Sea gas switchover the customer will have to be present when the installation takes place.

For North-Sea gas this was to manage safety risks as systems needed to be flushed of air before being switched on again (to avoid explosive air/gas mixtures in the pipes). For Smart Metering this is for the customer to receive, and be trained in the use of the mandatory In-Home Display device (IHD).

To achieve this a faultless appointment system needs to be put in place. The appointment system needs to ensure that the customer does not become a “not at home” statistic or does not become a source of in-bound queries chasing engineer status updates.

Indeed in a competitive environment if one company gets this right and another fails – the winner gains both a brand advantage for both energy and energy service sales but also gains a structural cost advantage over its competitor. Creating the best possible customer experience, and minimising the cost of roll-out are the twin challenges facing companies.

Interestingly they are not mutually competing goals but mutually supportive goals.

The best possible customer experience will minimise costs and maximise long term profitability.

Win, Win, Win - Appointment experience, cost, customer value

Often improving the quality of something brings with it increased cost. Not so in the case of appointment management. Improving quality lowers both cost and risk.

For customers there are three attributes which determine the level of satisfaction with the appointment process:

- The breadth of the appointment window
- The meeting of promised appointment times
- The removal of uncertainty regarding appointment status

Breadth of the appointment window

The telecommunications sector in general, and the cable operators in particular, have discovered that customers forced to accept a long time window are not only disappointed by the level of service offered but may also not stay in for the full length of the window or repeatedly contact the company querying the status of the engineer. Hence long time windows engender negative customer behaviours and attitudes.

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Meeting promised appointment times

Furthermore, if an engineer misses a window a negative behaviour is even more likely to occur. Either the customer is not yet back at the location if the engineer is early – or the customer has given up waiting and got on with their life if the engineer is late.

A recent survey covering over a 1000 respondents across the UK conducted by Vision Critical in 2010 showed that for home delivered services (spanning cable, utilities, furniture and groceries showed that more than one third of respondents had “left home in frustration because the service/delivery person was late.

Once a “not at home” has occurred the customer needs to be asked to repeat the whole process – thus exacerbating the situation creating additional costs for both the customer and the energy supplier.

Removing appointment status uncertainty

Finally, not knowing what is going to happen in itself creates a negative perception. A lack of timely, pro-active, accurate, and regular communication with the customer can in itself create uncertainty and increase the chance of negative behaviours coming about.

If the appointment process is broken a number of negative behaviours can manifest themselves as:

- Increased “Not at Home” incidents
- Increased customer in-bound calling (querying where the engineer is)
- Customer churn for energy products
- Customer rejection of energy services offerings in the future

“Not at Home” impacts Engineer costs

As home visits fail they create a revisit commitment. Whilst the customer density (customers per square mile) may be relatively high for the first visit it will be appreciably lower for subsequent visits. As a rule of thumb engineer travel times vary as the square of customer density so that a halving of customer density will increase travel times fourfold, a reduction of two thirds will increase travel time nine fold and so on.

Add to this that at any household it will be necessary to have multiple skills available:

- Capability to install a gas meter
- Capability to install an electricity meter
- Ability to install a communications box
- Ability to commission an IHD and train a consumer in its use

In some cases multi-skilled engineers will be used. However, since these are more expensive than single skilled personnel with base salaries circa 33% higher (£24k vs £18k), and are in short supply, it is expected that some suppliers will choose to use a multiple engineer solution.

If multiple engineers are needed the scheduling task becomes significantly more complex as each of the tasks above take differing times to complete. Whilst “Not at Homes” create significant additional travel times for a single engineer – this effect is compounded if multiple personnel are required on site.

Being left with numerous isolated “Not at homes” is a potential service engineer cost nightmare.

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Inbound calls can make customer service costs spiral out of control

Furthermore, an uncertain and dissatisfied customer is likely to be the generator of in-bound calls to the suppliers customer service call centre. The previously mentioned survey by Vision Critical showed that over half of respondents had “contacted customer service to complain about my waiting experience”.

This in turn puts pressure on the limited resources available leading to a reduction in the calls returned to customers regarding their appointments, this in turn causes repeat inbound calling. A relatively small shift in call volumes can be amplified by these feedback loops causing such a dynamic system to spiral out of control. Systems that only rely on the human resources of the organisation to communicate with the customer have a high risk of failure.

Not only is the risk of failure high but the organisation needs to be sized to accommodate the people being used to carry out these activities thus structurally increasing costs.

A growing body of uncertain, dissatisfied customers has the potential to create both a customer satisfaction and a customer service cost nightmare.

Customer dissatisfaction can destroy future customer value potential

Every customer that exhibits negative behaviours has every chance of being a dissatisfied customer at the end of the process. As a consequence they will both be a high churn risk, and a low prospect for sales of energy services as this market expands.

The situation is in fact worse than this. Each dissatisfied customer will talk to friends, family and neighbours – or may even spread the word on line through social networking sites such as Facebook and Twitter.

The 2010 Vision Critical survey found that over half (53%) of respondents “Complained to my friends about my waiting experience” and that over 1 in 6 (16%) “Posted a complaint online (to a blog or a social network) about my waiting experience”

A negative perception created for one householder can impact on the future decisions of 10s or even 100s of consumers.

The impact on energy supply churn and future energy service sales is probably the hardest to quantify but is likely to be the most important determinant of the overall impact of appointing system failure on supplier profitability.

Therefore reducing the time windows, assuring adherence to promises, and actively communicating with the customer both enhances the customer experience (and consequently their lifetime value as an energy and energy services customer) as well as reducing the costs of smart meter roll-out.

The above is a well documented and a well understood phenomenon which has been addressed by both the telecommunications and the retail grocery (home delivery) industries. It now needs to be addressed by the energy sector.

So the critical question is how can an energy supplier engaged in Smart meter roll-out minimise the appointment time window, ensure an overwhelming amount of appointments are delivered as promised, and put in place customer communications that remove the uncertainty surrounding engineer status?

Deploying industry leading Customer Appointment Management (CAM) and Scheduling Technology is the way to assure a successful Smart Metering roll-out by offering and delivering exemplary customer experience

This is because industry leading CAM ensures that:

- The promised time window is kept as short as possible
- Appointment promises are met to the maximum possible extent
- The customer is automatically and immediately updated as the appointment process unfolds

Minimising Time Windows

The ideal, from the customer's perspective, is to have time windows of one or two hours.

The bar has been raised for the in home appointment by multiple industries including the cable , telecoms, and grocery retail sectors.

For Smart meter implementation the challenge is to offer one or two hour time windows. Given the potential street by street nature of the roll-out and its associated high level of customer density this should be achievable – and would be much appreciated by customers

However, the width of the time window reflects the degree of accuracy that the supplier can achieve in its forward resource planning. Legacy systems typically assume that an engineer is an average engineer such that plans are based on an average engineer's time to carry out a task, and that travel times are based on distance between locations.

In reality each engineer performs differently, and travel times vary significantly at different times of the day, times of the year, and are significantly impacted by prevailing weather conditions and/or road works and traffic conditions.

A plan based on actual engineer performance characteristics, and real travel time will be inherently more accurate than one based on assumed averages.

Hence, in order to achieve the same level of certainty that an appointment window will not be missed a plan based on real performance parameters and real travel times will be able to offer shorter time windows than one based on averages, by predicting with a high degree of accuracy when the engineer will arrive.

A growing body of uncertain, dissatisfied customers has the potential to create both a customer satisfaction and a customer service cost nightmare.

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In order to achieve reality based resource plans the appointing system needs to have the capability to learn and take into account the different performance levels of the different engineers. For example it needs to learn that John takes 25 minutes to install a gas meter whereas Mary only takes 15 minutes.

It also needs to understand that travelling in the rush hour takes longer in urban areas – and that speeds differ between urban and rural locations. It also needs to be able to learn in real time such that when snow or road-works start to affect engineer travel times that the scheduling system reflects this and that predicted time windows then reflect this reality.

What is needed is self-learning and predictive intelligence built into the appointment system

Meeting appointment promises

96% plus levels of meeting promises has been shown to be a standard that is achievable in practice if best practice appointment systems are used.

Critical to the achievement of this is the ability to manage jobs in jeopardy effectively.

Firstly the scheduling system needs to show dispatchers which jobs will be completed on time and which are at risk of being late or unfulfilled. It then needs to enable the dispatch team to reschedule the work as the day unfolds to minimise levels of appointment breaking and where original appointments cannot be met to put in place the effective customer communications to put alternative arrangements in place.

To achieve the above the appointment system needs to;

- be able to predict and visualise where the problems are going to occur before they do
- assist central dispatch staff to identify the optimum reconfiguration of resources in real time
- enable central dispatchers to see the consequences of rescheduling resources both in terms of knock-on effects on engineers but also on required customer communications
- ensure that communications to engineers and customers takes place rapidly and effectively

Again this cannot be done without self-learning and predictive intelligence being built into the system since without them the information on which jobs will be in jeopardy and what the impact of remedial measures will be elsewhere in the system will be erroneous.

96% plus levels of meeting promises has been shown to be a standard that is achievable in practice if best practice appointment systems are used.

Utilising the mode of communication the customer prefers ensures the highest possible level of customer satisfaction.

Removing engineer status uncertainty/ Where is my engineer?

Traditional systems rely on dispatch teams or engineers to call customers to advise them of appointment status. This works well when the delivery system is stable and unstressed.

When things go wrong, as they inevitably do, relying on human resources to communicate with customers can lead to disaster as explained earlier. The ideal appointing system automatically communicates with the customer through their preferred communication channel without human intervention. This can be via text, email or telephone as desired by the customer.

Then when stresses on the delivery system occur the human resources can be focused on doing the tasks the system cannot (e.g. installing a meter or responding to a customer complaint). The vast majority of outbound communications and many inbound queries can be handled by the automated response systems of best practice appointment systems.

Furthermore, utilising predictive customer communications technology means that customer always knows the current status of their appointment. Best of breed solutions enable customer communications the day before the appointment, on the morning of the day, and if required one hour before the actual appointment.

This in turn minimises the chance of the customer either phoning in to query status or leaving the premises to create a “Not at home” incident. With regard to the latter getting the customer to actively confirm that they will be present at the appointment greatly reduces the likelihood of a “Not at Home” event occurring. Utilising the mode of communication the customer prefers ensures the highest possible level of customer satisfaction.

Automating customer communications also means that engineers can be focused on installing meters, comms boxes, and IHDs and back office staff can be used to manage jeopardy calls and deliver customer service thus allowing roll-out to be delivered at a structurally lower cost as machines perform some of the tasks currently handled by people who could be better used performing their principal function.

Finally, utilising the continuous feedback approach from the original appointment booking through to the post appointment customer satisfaction survey ensures that the customer experience is the best it could be. Achieving this at this crucial touch-point in the relationship with the consumer lays the foundation for future business in both the energy and energy services domains.

Hence, a pro-active, tailored, and automated customer communications capability is a must have for assuring successful Smart metering roll-out.

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In conclusion, implementing industry leading CAM technology will enable suppliers to maximise the benefits from, and minimise the costs of, and risks inherent in, Smart Meter Roll-out

So with Smart meter roll-out imminent is there time to switch to a CAM technology solution?

The answer, as so often is the case, is it depends.

If you are looking at traditional legacy systems where you need to install the system into your own enterprise IT systems project implementation times can often be in the 9-12 months range.

However, if you are looking at Cloud based SaaS (Software as a Service) systems implementation times are typically much shorter.

In addition upgrades in a SaaS system are seamless as they are implemented within the cloud rather than requiring specific activities within your own IT domain.

Hence, provided the solution you adopt is Cloud based then implementation time should not be a problem.

Won't the costs of switching be prohibitive?

Again the answer is it depends.

If you are looking at traditional legacy systems there are significant up-front hardware and software costs to fund. Although clearly these will be recovered over time assuming the business case for the investment is sound.

However, if you are looking at a cloud-based SaaS solution no up-front investments in hardware or software are required so you get your return on investment earlier.

Given the scale of Smart Meter roll-out a diverse work needs to be involved comprising own and contractor staff – can a CAM system cope?

If the system is cloud based all that is needed is a communications device with a built in standard web browser. Web based SaaS solutions are ideal when working with a mixed work force.

Switching to a predictive, self learning, tailored, and pro-active CAM system delivered in partnership via a SaaS solution is the best way to assure an immediate and successful Smart meter roll-out

ETAdirect from TOA Technologies

ETAdirect brings together a full suite of integrated field service and appointment tools in one Web-based application. It's the only mobile workforce management solution focused on delivering a unified and enhanced customer experience through intelligent, automated and predictive customer communications. ETAdirect's unique activity tracking provides a comprehensive time-study analysis of operations, improving planning and on-time performance, as well as managing customer expectations. In practice ETAdirect customers achieve 96%+ delivery within promised time windows – an industry leading performance.

Only ETAdirect lets you plan, schedule, dispatch, monitor and communicate real-time with:

- Customers waiting for service and delivery appointments
- Back-office employees, including contractors and subcontractors
- Field and mobile employees

ETAdirect enables you to automate communications with customers from initial appointment setting to post delivery customer satisfaction survey (which is carried out within 10 minutes of an engineer leaving the property to ensure that perceptions are still fresh in the mind of the customer, and that results can be processed and actions taken, if necessary, to improve customer satisfaction in real time.

Organisations which have deployed ETAdirect have experienced:

- 50% reductions in “where is my engineer?” calls (Cox communications)
- Significant improvement to “Net Promoter Scores**” which are the universally acknowledged best indicator of customer stickiness (Virgin media)

ETAdirect is a predictive self-learning system based on patented performance pattern parameter algorithms enabling organisations to schedule work based on individual engineer performance characteristics and real time travel metrics.

ETAdirect is a zero-footprint application and can be accessed from any internet-enabled device including mobile phones, PDAs and laptops.

ETAdirect: A Software-as-a-Service (SaaS) solution that can be implemented in a few weeks and requires no upfront investment.

As an SaaS pro-active CAM technology, ETAdirect is ideally suited to positioning your organisation at the top of the league table in customer satisfaction during Smart Meter roll-out.

* Net Promoter® is both a loyalty metric and a discipline for using customer feedback to fuel profitable growth in a business. Developed by Satmetrix, Bain & Company, and Fred Reichheld, the concept was first popularized through Reichheld's book The Ultimate Question, and has since been embraced by leading companies worldwide as the standard for measuring and improving customer loyalty. Fred Reichheld's work revealed that the willingness of a customer to recommend a company was the single market research question correlated with that customer's propensity to remain loyal to a given supplier. It has thus been adopted by organisations across the world as the most important measure of customer satisfaction.

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