Smart Rollout and Beyond – The Data Management Challenge

As the Smart meter revolution unfolds in the UK the challenges arising will reinforce the importance of effective and integrated data management of legacy and Smart related data by energy Suppliers and their metering agent service providers alike.

The Supplier Challenge

The mandatory roll-out of Smart meters by Suppliers is viewed by government as the key enabler to achieve government carbon reduction objectives while providing persisting longer term benefits to both Consumers and Suppliers along the way.

Suppliers will be expected to achieve reductions in costs to serve and to invigorate the competitive supply market via, for example, development of differentiated tariff offers to consumers. Such offers themselves are also expected to encourage carbon and cost attractive shifts in energy time of use and reductions in overall energy demand.

Suppliers will also be expected to better support Consumer understanding of their own energy consumptions and impacts. Tariff offer variants from Supply companies must be clearly understood by Consumers so that their positive contributions to achieving the objectives of Supplier differentiation, consumer energy cost reductions and overall carbon reductions are assured. The development, testing and assurance of TOU tariff variants by Suppliers will demand rigorous analysis and monitoring of the more granular half hourly interval consumption data available from Smart meters, together with delivery of effective reporting and feedback channels to customer groups. Consumption interval data analysis, estimation and aggregation initiatives at Suppliers, coupled with ongoing refinements within energy wholesale market mechanisms, must lead inevitably over time to shifts away from Non Half Hourly energy settlement regimes to more precise Half Hourly settlement across both I&C and domestic customer portfolios.

The scheduled introduction of the new DCC (Data Communications Company) service provider role in the UK will also have significant impact upon existing Supplier data management processes.

Suppliers to the domestic consumer are mandated to adopt 'vanilla' smart AMR/AMM services provided exclusively by the DCC. Positioning of the DCC within the Smart market model will impact significantly upon existing data interfaces between the set of Supplier Hub related industry business processes. However, the DCC, supporting all Suppliers with its important but limited set of services, will not be an attractive vehicle to achieve either integrated or Supplier differentiated data management services.

Additionally, the rollout and implementation of Smart meters and the reducing requirement over time for pedestrian based services will impact significantly upon Supplier data management arrangements. The pace of rollout will be limited initially by the availability in the market of appropriate field resources. The costs attached to diminishing volumes of pedestrian meter reading service requirements over time will increase. Flexible and evolving contracts with a wide range of targeted field service providers are unavoidable, but consistent data management regimes that integrate both legacy and smart data must be assured along the way.

The Metering Agent Challenge

The impacts of the developing Smart market model upon metering agent companies are clear.

While agents providing meter installation field services will prosper over Smart rollout such revenue returns will diminish over time. The market for field only services will also become much more granular and competitive, further impacting revenues. Service delivery models will migrate away from large, in-house, geographically dispersed and multi-skilled team arrangements towards distributed and targeted sub contracting arrangements between work management and logistics coordinating function holders and multiple geographically dispersed, specialist and resource optimised field service organisations.

Similarly, metering agent delivered data only services within the domestic consumer market will also diminish significantly over time as Smart and DCC services roll out.

However, despite the clear threats and challenges to status quo service delivery models the Smart world will provide important new opportunities to those innovative and imaginative agents who plan ahead for the repositioning required to remain attractive partners to Supply companies and directly to I&C clients.

The I&C market for agent services will continue to favour partnership building between business and Public Body clients and their selected agents who can guarantee to provide consistent and responsive data management services. Such arrangements will continue to provide client flexibility within the energy procurement market while protecting and assuring persisting eM&T and client aligned data management processes over CoS events. As I&C consumers are inevitably moved from NHH to HH settlement regimes their trusted agents must be capable of integrating NHH and HH data management offers to clients in order to remain attractive partners. Successful agents will extend and refine their data management offers so that they become embedded completely within the I&C client’s overarching business data management architecture.

Attractive data management service offers aimed directly at Supply companies will similarly embody the characteristics of successful agent offers to the I&C sector – integrating legacy meter data and Smart, NHH and HH settled data, granular consumption data analysis, tariff testing and consumer channel reporting, responsive meter AMM and integrated home services, industry model change management etc.

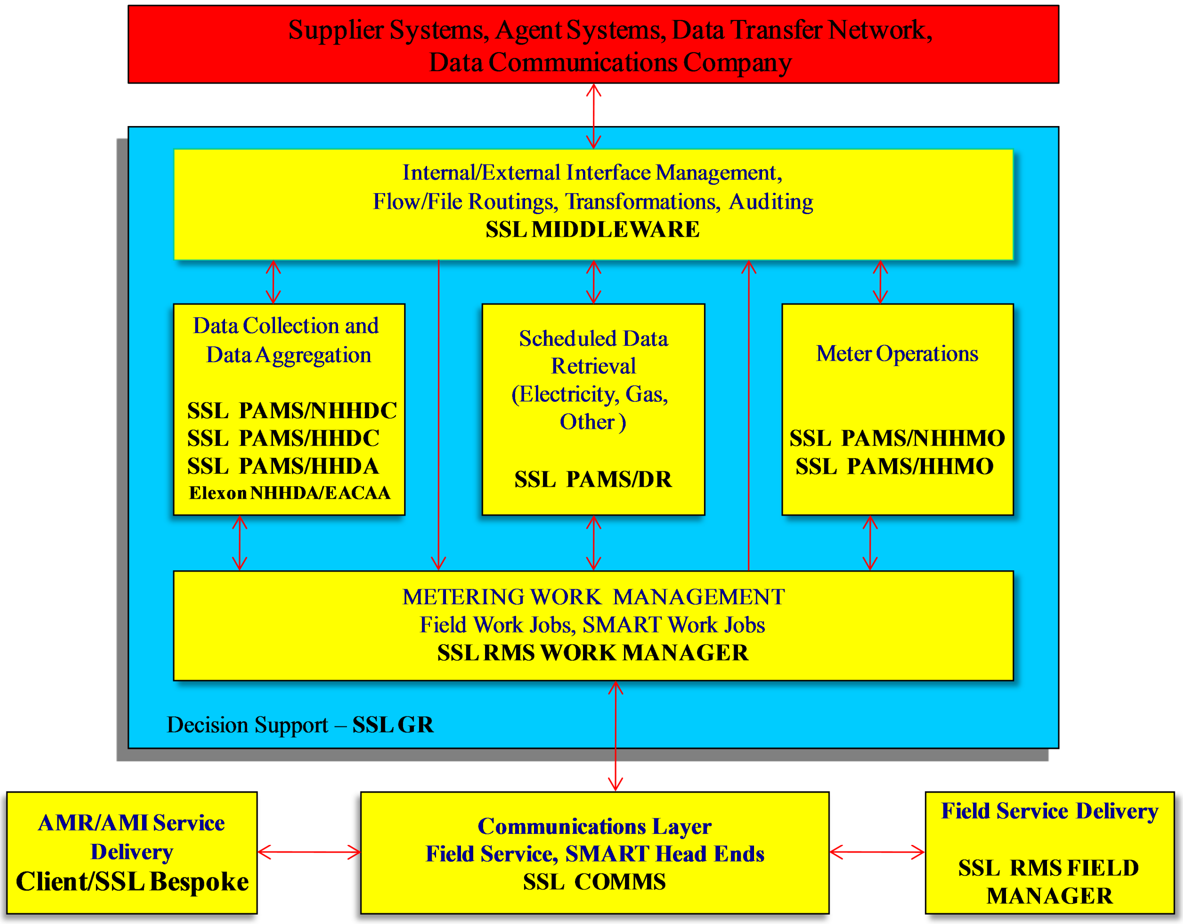
Agent service providers will recognise that they must become a one-stop-shop provider of integrated data management services to remain attractive partners to both I&C clients and to Supply companies.

Meeting the Challenge

Salient Systems have this year completed development, delivery and mobilisation of the set of Industry qualified systems which will continue to assure delivery of Electricity Supplier Hub objectives at Supplier companies and their metering agents - within the evolving landscape of Smart rollout, DCC role positioning and the significant extension of demand upon existing data management capabilities.

The diagram below graphically summarises the logical architecture positioning of key SSL product collateral.

METERING FUNCTIONS - SSL APPLICATION COMPONENTS



Key Observations:

- SSL NHHMO/HHMO and RMS systems, complemented by experience gained in the I&C market providing interfaces to Smart head-ends, will address the logistical and data management challenge of Smart rollout and ongoing Smart meter maintenance.
- SSL NHHDC/NHHMO/NHHDR synergies and proven interfaces to third party head ends will address delivery of Smart rollout Foundation stage system architectures, preparing for seamless migrations to DCC role integration within the Supplier Hub. SSL's NHHDR solution achieves the proposed read scheduling and completion requirements of DCC itself.
- SSL HHDC/HHMO/HHDA solutions address the challenge of managing HH processes and interval data, preparing for migrations from NHH to HH settlements.
- SSL GR/DSS facilities - providing HH data analysis capability that can also be applied at Smart NHH interval data to address Supplier and Consumer data analysis and multiple format information presentation and delivery requirements.
- Interface building between SSL systems and Smart MDM/Head End systems embody the principles of the proposed 'Transform' interface management capability provided at DCC.
- SSL systems will continually evolve to reflect the changes that will be required to the existing Market Model and at Industry systems to successfully incorporate DCC and

Smart. Together these commitments will contribute to painless evolution rather than revolution of data management architectures and processes over time.

Not only do SSL already offer the complete, smart, integrated systems solution to manage data within the evolving Smart landscape, but SSL will also radically lead the Industry in the means by which data management solutions will be made available to Supply companies and to metering agent companies.

Our offer to the Supplier and to the Metering Agent markets will include transactional charging mechanisms aligned to levels of service delivery achieved, consortium factored product S&M fees reflecting only the true costs of accommodating Industry change and a continuing commitment to provide significant opportunity for client differentiation of service models achieved via the Salient product set.

Proposals here will particularly support Government objectives to encourage new Supply companies to market. Our charging model will also reinforce SSL commitments to assure cost effective delivery of all stakeholder objectives around Smart.

SSL achievements and our product offer to clients are further summarised below:-

- Industry (Elexon) qualified and mobilised electricity NHHDC, NHHMO, NHHDR products complemented this year by delivery, qualification and mobilistaion of HHDC, HHMO and HHDA product set.
    - Completing ‘core’ data management set
    - Supporting expected gradual migration NHH > HH settlements
    - Proven interfaces to established Smart head-ends, bespoke head-ends and Work Management systems (SSL RMS and client specific).
    - Industry required DTC interfaces ‘out of the box’ – DCC ready !
    - ‘Transform’ interface handling facilities.
    - HH interval data analysis complements (tariff analysis)
    - DSS facilities – SSL GR – user defined cross-systems data mining, data analysis, secure tabular and graphical presentations of data to internal and external users.
- Proactively support predicted Market Model changes
    - DC/DR/MO interfaces to SSL RMS (Resource Management System, proven system supporting multiple millions of field service jobs per annum) supporting Smart meter rollouts and flexible contracts with external meter worker organisations over gradual roll back of requirements for such services.
- Product Differentiators
    - Modern, automated, scalable
    - Business Model driven designs achieve step change in operational clarity of Business Process status and ease of applying BP refinements or change.
    - Technical architecture consistency, flexibility, efficiency coupled with automated, management by exception business process interventions produce lowest cost of ownership – hardware and people resource.
    - One-stop-shop, avoiding complexity of managing disparate offerings from multiple providers.

Contact details are provided below to discuss the SSL offer in further detail or to arrange product demonstrations.

Contact Details:

Name:	Dermot Hearty
Position:	Director
Phone:	07801 947336
Email:	heartyd@salient-systems.com
Web Site:	www.salient-systems.com