



Version: 1.0

Author: Industry Business  
Unit Utilities



## MRD Short Version for Scenario: Service Processing from Distribution/ Service Company Perspective

DSO/ Service Company Service Processing in a  
Liberalized Environment

### History

Version	Status	Date
1.0	Final version	October 2009



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## 2 Scenario Scope, Business Description & Market Analysis

### 2.1 Business and Market Context

The development of liberalization is having an increased impact on service processes. The imposed unbundling requirements in particular are causing the splitting up of formerly seamlessly integrated processes. One example is a request for meter replacement sent from the retailer to the distribution company. This has only been partially established in the market. The consequence of such a development is an adjustment of the service processes to match the new enterprise structures.

SAP already emphasized in 2006 that the impact of liberalization on service processing has neither been addressed to European institutions nor been discussed further within the Member States or individual companies (cf. White paper Service Processes in Liberalized Energy Markets). With the liberalization of metering this seems to have changed and service processing is now in focus.

Following an analysis of the service processes offered by the retailer, this market requirement document describes the topic of service processing from the point of view of a distribution<sup>1</sup>/ service company.

#### 2.1.1 Scope

In scope of this MRD are the **collaborative service processes** from a DSO's/ service company's perspective. All descriptions refer to tasks and responsibilities that are executed by distributors or other service companies (e.g. metering companies), unless stated otherwise. **Collaborative service processes** in the context of this document are those services that are initiated spontaneously and are not executed on a regular basis. These service processes require special scheduling and dispatching and are therefore often executed at higher fees than their periodic counterparts (cf. special meter reading service).

The analysis of the **collaborative service processes** focuses on the following areas:

**Service offering** – are the services offered by the DSO or by another market party (e.g. retailer)?

**Service request** – does the end customer request his service directly from the DSO or does he contact the retailer instead?

**Service scheduling** – how is the task “scheduling a service” managed in a collaborative environment?

**Service execution** – is the service execution performed by the DSO or does the DSO subcontract another market party to execute the service? Are services executed by different parties depending on the type of service?

**Service billing/invoicing** – is the invoice for the service created by the DSO and sent directly to the initiator of the service (e.g. end customer) or is the invoice sent to an intermediate (e.g. retailer)?

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<sup>1</sup> Distributor = DSO



**Collections management** – receipt of payment for executed services; requirements in terms of getting the bills paid and collection strategy in case of late or non-payment.

**Service monitoring** – what are the requirements of an effective monitoring and what exactly needs to be monitored from a DSO perspective? What data for monitoring purposes needs to be exchanged with other market parties?

**Status reporting** – what does a comprehensive tracking of collaborative service processes look like?

Basically, service processes can be grouped into services that are offered (direct service offering) and executed by the DSO himself (in-house service execution) or executed by an external market partner (external service execution).

Alternatively, there are services that are offered by the retailer (out of scope of this document) and the DSO only receives the service requests (indirect service offering).

Examples for service processes are as follows:

- Change of device
- Disconnection/ reconnection
- Routine maintenance or meter inspection
- Customer new connection
- Inspection/ repair of technical assets
- Meter reading processes/ consumption providing processes

The following service processes are not considered within this document, because they are handled in different documents or a software solution already exists:

- Move-in and move-out processes
- Start of supply and end of supply processes.
- Changes to the grid usage contract

However, innovative DSOs are diversifying and starting to provide additional utility-related, but also non-utility-related services to their customers. DSO customers can be manifold: Retailers, other DSOs, service companies, or end customers.

## 2.2 Situation Today

The following sections describe today's situation in various countries. This information has been gained from public websites, customer workshops and from answers to questionnaires. The information given below is therefore not complete and can reflect the opinion of individuals. Nevertheless the description gives some insight into how collaborative service processes are handled at DSOs within these countries.

### 2.2.1 France

The requirements for France have been deduced from large customers. The following information has been extracted from existing roll-in material and from answers to a questionnaire.



In France the market is shaped by two big DSO companies: EDF (for electricity) and GDF (for gas).

In general, technical services are executed by the DSO, but they can be requested from the DSO by the retailer. The services can be grouped into services concerning meter works (e.g. dis-/reconnection, meter replacement and inspection), new connections, meter readings and other services (e.g. complaints and information requests).

Most of these services that can be procured from the DSO depend on a legal framework defined by French law. However, customers can request all of the above mentioned services directly from the DSO as long as they have a contract with the DSO. This is usually only affordable for large customers. In most of cases, household customers only have a contract with the retailer and request the services via the retailer.

The DSO uses a call center as a unique entry point to the company. The IT interface of the DSO is a portal solution. This can also be used independently, e.g. via the web channel for service communication and ordering for retailer and other market participants (including large customers).

In this portal a retailer can enter a service request or track a service that is executed by the DSO.

Intercompany data exchange is not used for requesting services and data formats have not yet been defined. Continuous improvements are being made to automate service processing between retailers and the DSO. The final goal is to reduce the amount of human intervention.

Services are offered on the DSO's website. The prices for the services are fixed and everybody has access to the prices billed by the DSO to retailers. These prices are also published on the DSO's websites.

A service is requested by choosing the type of service and providing additional data such as customer name, installation address, metering point and SLA<sup>2</sup>. Furthermore the retailer enters a proposal for a time interval for the execution of a particular service. The DSO informs the retailer of the final execution date via the portal.

Usually the retailer receives confirmation of a service request after it has been planned and dispatched. The confirmation is displayed as a status message in the portal of the DSO. All service statuses such as service request received, scheduled, confirmed, dispatched, executed, billed, and cancelled are reported in the portal.

If the retailer has ordered a service, bills are exchanged between the DSO/ service company and the retailer. The DSO bills the retailer using the pricing that is available to the public. Basically for every service an invoice is sent from the DSO to the retailer. The DSO sends a bill to the retailer every month for commercial customers and every two months for residential customers. Additional information for each customer / metering point is also sent.

If a customer has a contract with the DSO, he receives the bill for executed services directly.

## 2.2.2 Germany

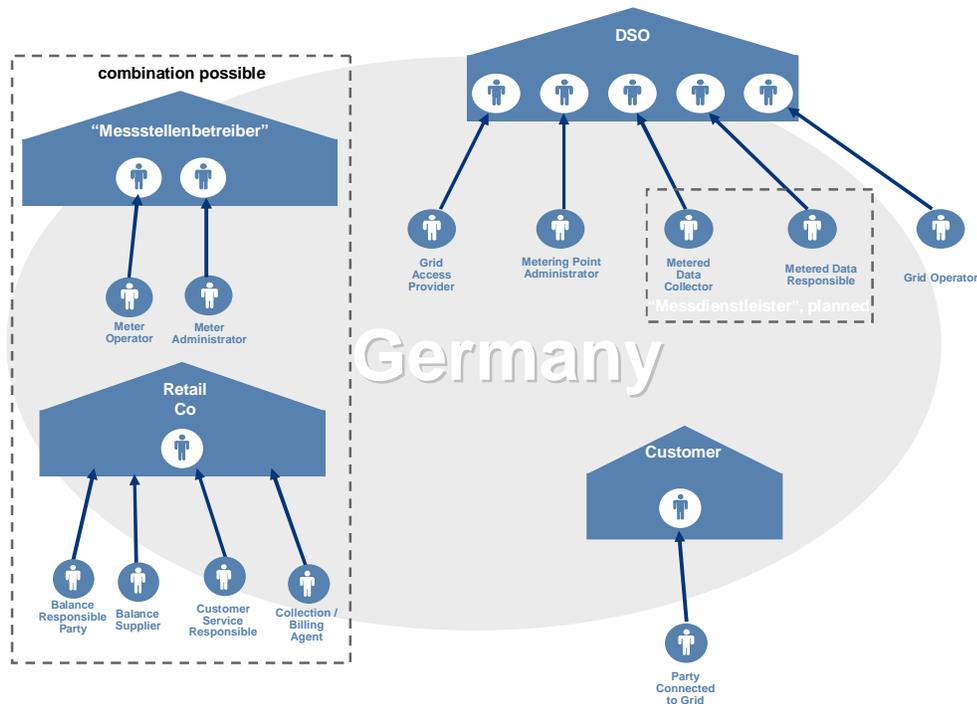
The information and the requirements for Germany have been deduced from the German law and from several interviews with DSO companies.

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<sup>2</sup> Service Level Agreements

In Germany, metering has been partially liberalized allowing new market participants (Messstellenbetreiber) to take over tasks and responsibilities originally assigned to DSOs.

## Market Parties and Roles - Germany



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In March 2009 the German regulator (BNetzA) announced that business processes, business agreements (outline contracts), and market communication formats for metering companies and the associated service processes will be defined. This will also include meter and measurement value related service processes.

In addition to the above mentioned services, the execution of technical services (e.g. new connection service) is the responsibility of the DSO or metering company. However, these services can be requested from the service executor via the retailer.

The services can be grouped into services concerning meter works (e.g. dis-/reconnection, meter replacement and inspection), new connections, meter readings, and other services (e.g. complaints and information requests).

Service-related meter works can be executed by the DSO or the meter operation company (Messstellenbetreiber). Services concerning meter reading can be executed by the DSO or the meter reading company (Messdienstleister).

The DSO or the metering company receives either the service request directly from the consumer or indirectly via the retailer.

There are different departments at the DSO that receive either the direct service requests from the consumer or the indirect ones via the retailer. These departments are called "Netzvertrieb" or "Abrechnungsservice Netzbetreuungsaufgaben" or even "Call Center".



As there is currently no defined market communication in place, collaboration between companies has not yet been automated for these. At present, communication takes place via e-mail, phone, and sometimes EDIFACT messaging.

Some DSOs are considering using portals to offer technical services for the mid term future.

Incoming service requests via the retailer are identified by means of the PoD, meter ID, customer name, address data, SLA, and even service product name. However, service products are currently only partially defined between market participants. If the PoD is not included in the service request, the DSO must be able to identify the respective service location from the other data of the inbound service request message.

Each DSO/ service company offers either standardized or individual service products. Standardized service products are the majority, whereas individual products will become more and more important for DSOs to secure their business (e.g. maintenance, grid operations). These products are often negotiated directly with the consumer - usually a major customer.

For the majority of German DSOs, the only services offered directly to the consumers are those that are legally required.

In general, German DSOs offer services via the Internet. However, in most cases there is no information on these websites to show whether the offered service is provided by the retailer, distribution, or another company of the holding.

In addition to classical utility service products, non-utility service products are increasingly being offered within a bundle. Examples for non-utility service products are:

- Spun glass cable for broadband internet services
- Product portfolio consulting

In the consumer segment for residential customers service products can be offered via the retailer. Large consumers often have direct business relationships with the DSO and therefore service products are offered directly to them.

DSOs often outsource the execution of service processes for new connection and parts of maintenance to external companies.

Appointment scheduling for services needs to be executed according to SLA. The retailer can forward the proposed date from the consumer for the execution of the service to the DSO. If the DSO cannot execute the service on that date he would contact the consumer directly and after having arranged a new date with the customer the DSO informs the retailer about the agreed date.

Service requests have to be confirmed according to the German legal framework (GELI/ GPKE). The confirmation of a service request is usually done after the DSO has planned and dispatched the service execution. Statuses to be reported are service request received, confirmed, cancelled, and executed. There is no market communication defining how service execution should be confirmed.

The following pricing methods for services are possible:

- Price per service order or additional task
- Price for a certain number of equal services
- Pricing referring to SLA

All services where the customer has a warranty are not billed by the DSO.

On the other hand, all service products that are ordered by the customers' explicit request are billed. Basically all kinds of services that have been requested via the retailer are billed to the retailer.



It is currently unclear how financial settlement should take place between DSO and retailer in Germany. For example, the DSO could pay a commission/fee to the retailer for the arrangement of a service on behalf of the DSO. The retailer can be billed in any time interval (e.g. monthly) and using different kinds of aggregation.

However, new connection and eliminating connection as well as energization/ deenergization are billed directly to the consumer.

### 2.2.3 Hungary

The information about the Hungarian market has been gained from an interview with one single company.

In Hungary, technical services are offered by the DSO only. He receives the service requests directly from the consumer. The consumer can either contact the call center or go to a customer service center.

The offered services can be grouped into services concerning meter works (e.g. dis-/ reconnection, meter replacement and inspection), new connections, meter readings and other services (e.g. complaints and information requests).

Pricing for services is fixed within SLAs.

The DSO advertises the provided services either via the Internet, TV ads, or in newspapers. There are plans by DSOs to introduce the installation of smart meters in the near future.

The service request is usually confirmed after the DSO has planned and dispatched the service execution. The question of whether the confirmation is only an internal status or if the confirmation is also sent to the customer was not clarified.

### 2.2.4 Ireland

The following information was gained from official websites ([http://www.rmdservice.com/market\\_design\\_v6\\_1/index.htm](http://www.rmdservice.com/market_design_v6_1/index.htm)) and feedback from one retailer.

In Ireland, technical services are executed by the DSO, but they can be requested by the retailer from the DSO. The services can be grouped into services concerning meter works (e.g. de-/energisation, meter problems and damage, changes of metering method), new connections, and other services (e.g. move electricity pole or line on your property).

In Ireland, services are offered by the call center of the DSO. These services are offered to end customers as well as to retailers in a similar way.

There are already market messages defined for ordering services from the DSO to be used by the retailer. Examples are the Meter Works Request (030), the Meter Point Status Change (017), and the Request for Special Reading (252).

The service order should refer to a technical object, which is used to determine the point of delivery. It is also necessary to capture some consumer contact data within the service order in order to be used by the DSO to contact the consumer directly, if necessary.

Some service processes, such as the new connection process, require quotations first. Quotations are issued by the DSO.

Appointment scheduling with the consumer is done in a collaborative way. The DSO offers a website so that the retailer can book an appointment (for example, a time slot for half a day) for customers for any type of work request.

As soon as the work has been carried out by the DSO, a confirmation message is sent to the retailer to inform him about completion. The DSO only needs to confirm service requests from



the retailer if a confirmation has explicitly been requested. The DSO can also send a rejection message, if he cannot provide the requested service. The market has already defined messages to be used, for example 'Rejection messages' (137R, 117R, 130R, 352R) and 'Confirmation of work messages' (106D, 106E, 300S, 331, 332, 261).

The DSO issues monthly bills to the retailer for all transactional charges for the month, grouped by customer segment (DUoS – Distribution Use of System). The bill is also provided as an electronic file.

### 2.2.5 Spain

The following information was gained from feedback from one single customer. It does not necessarily represent the whole Spanish market and the information is not complete (e.g. market messages, confirmation handling, etc. are unknown)

In Spain, DSOs mainly execute maintenance services. The consumer's service requests are received by the DSO via the retailer.

The retailer arranges the appointment for the service execution together with the customer. There was no information available regarding how the scheduling is done in detail.

The DSO bills the service to the retailer together with grid usage billing. Additional billing lines for the service execution are included at PoD level.

### 2.2.6 Sweden

The following information was gained from one single retailer. Therefore the information does not necessarily represent the complete Swedish market.

Technical services are executed directly by the DSO. The services can be grouped into services concerning meter works (e.g. dis-/reconnection, meter replacement and inspection), new connections and meter reading services.

A service level agreement between Svenska Kraftnät<sup>3</sup> and the DSO regulates how the DSO needs to fulfill his obligations. The service execution can be outsourced to third parties. The choice of executing company is dependent on the customer's location

In Sweden, the consumer calls the DSO directly to request a technical service. The DSO schedules the appointments directly with the customer, confirms the execution of a service with the consumer, and bills him for the service.

Only the disconnection/ reconnection service process can be triggered via the retailer. The DSO performs the disconnection/ reconnection and informs the retailer via standard EDI messages once the service has been executed. There is no information available regarding whether the retailer needs to pay for the disconnection service.

### 2.2.7 United Kingdom

The information and the requirements for the UK have been deduced from a utility company operating as Metered Data and Meter Operation Company, from a SAP colleague working in a project in the UK, and from an official web site

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<sup>3</sup> State company that administers and runs the national electricity and is also responsible for the gas grid; see also <http://www.svk.se/Start/English/About-us/>



The UK market works in a highly collaborative way, because the work is split according to a high number of specialized market participants. Technical services are executed by the appropriate specialized market participant. For example, meter operation services are executed by the Meter Operator, meter reading services are executed by the Data Collector and new connection services are executed by the DSO.

Among the “most wanted” service offerings within the UK market are the Metered Data Services and the Meter Operation Services. As the UK market is a mature liberalized market also in terms of the mentioned metering services each company can establish their own business model within the regulatory framework. There are companies that offer metered data collection and metered data aggregation, but outsource metered data retrieval. A metering company could even decide to deliver services exclusively to one single retailer.

The utility market in the UK predominantly follows the supplier-centric approach. For service processing, this means that services requested by the consumer are mostly received indirectly via the retailer. The receiving service companies are also called “agents”.

For the service processes the retailer sends an electronic service request. These services can be grouped into services concerning meter works (e.g. dis-/reconnection, meter replacement and inspection) and meter reading services (metered data collection).

The data exchanged between the market participants depends on the particular data flow which needs to be sent. These data flows are defined in the data transfer catalogue which can be found on the MRASCO website. All electronic service requests will be tagged with the identification of the sending market participant and contain master data that is relevant for service initiation (e.g. customer/address data, metering point, location, technical assets, scheduling dates, service product information, service agreement and service level agreements). This information is needed for all processes performed either by the Meter Operator or Data Collector.

There are different approaches to customer appointment management. In all cases the retailer acts as single point of contact.

In the first case, the retailer tries to negotiate an appropriate appointment for an action via the help desks of the corresponding market partners (e.g. distributor, meter operator), or books a service online if a portal solution is available. Either the market partner accepts or rejects the appointment. In the latter case, the retailer can negotiate a new appointment or he can pass this task on to the market participant (service executor) so that they can agree on an appointment directly with the end customer.

In the second case, the retailer passes the customer call directly to the help desk of the corresponding market partners who then arrange an appointment.

In the third case, the retailer collects the appropriate customer data and forwards it to the market partners who then arrange an appointment themselves.

All retail agents, with exception of the associated retailer, need to book appointments according to SLAs. Appointments booked outside of SLAs are agreed by telephone. In these cases, requests are followed up by EDI standard industry data flows.

In emergency cases the retailer will call the respective agent directly to initiate the service. However, this will be followed up with a standard industry data flow.

If a service has been requested by the retailer, he will be informed about the outcome by means of a standard industry flow. The various statuses are communicated, for example ‘Service created/received’, ‘Service executed’, ‘Service canceled’. A “partially completed” status for example can trigger a follow-up appointment scheduling with the consumer through the retailer agent.



All service agreements with the different market participants (service executors) are negotiated containing pricing for different types of services as well as SLAs. Basically, prices are based on fixed metering point/day charges, as well as on transaction charges for each service.

The service executor bills the retailer for the different service operations. An aggregated bill is sent on a monthly basis on metering point level for the provided service.

For new connection services (including elimination of connection) and some other specialized services (e.g. half-hourly meter operation services, high voltage contracting and complaints for network) the distributor or the service company is contacted directly by the consumer.

Services offered directly by the DSO are mostly promoted via the internet or during trade shows. In cases where the DSO is making a new connection or changing an existing connection he bills the consumer directly for his services.

### 2.2.8 Summary of Country Analysis

We can conclude from the country analysis that the execution of services (such as meter reading, device replacement and maintenance, disconnection and reconnection, new connections) is mostly still done by DSOs. Only in a few countries (UK and Germany), can independent and specialized companies (metering or meter reading companies) be responsible for ownership and execution of these services. Even when the services are mostly executed by the DSO, collaboration can take place with supply companies offering the services to the consumer.

From the country analysis, we can also deduce that there are two different types of market regarding the implementation of Collaborative Services.

On the one hand, there are countries that do not have established **collaborative service processes**. This means, that services are only offered by the DSO to the consumer without including the retailer as a re-seller or middleman for service operations. Hungary and Sweden are the two countries using this model.

On the other hand, there are countries that do have established **collaborative service processes**. This means, that services are not only offered by the DSO to the consumer, but also through the retailer. France, Germany, Ireland, Spain and UK have this type of market. In these countries, service requests and orders are sent from the retailer to the DSO or service company.

The communication between retailer and DSO/ service company e.g. for ordering the services or getting the status of order execution is done in different ways. Only in UK and Ireland is the exchange of these requests and bills fully automated by the exchange of electronic market messages. In most other countries the exchange of information is still done manually or semi-automated. Semi-automated means that the DSO provides (self-) services (through portals) that can be used by the service requestor to order a certain service.

In all countries that have established collaborative services, the offered services are categorized by the DSO (or by metering or meter reading companies). That means that services are offered like a product with a certain price that is published. Retailers that have requested services are usually billed on the basis of the price list. The billing to the retailer is not done per service request, but on a regular basis, for example monthly for all the services delivered during the month.

In addition, the same services/products can be offered directly to the consumer by the DSO (or by the metering company) under certain circumstances, such as for non-residential customers.



Scheduling of the service execution is done in different ways if **collaborative service processes** are established. In some markets the DSOs offer portal solutions where consumers or retailers can capture and monitor services. In supplier-centric markets, the retailer is responsible for fixing service appointments on behalf of the consumer. Sometimes predefined slots are offered by the service executor to the retailer that he can book on behalf of the consumer. In markets that are still dominated by DSO companies, appointment scheduling is done by the DSO.

### 2.2.9 Perspectives

The country analysis demonstrates that **collaborative service processing** is already a daily occurrence in many countries and an important topic for liberalized energy markets.

Especially in countries where unbundling between retailer and DSO companies has taken place and the market follows a one face to the customer approach, collaborative service processes play a significant role.

It can also be observed that the relevance of collaboration for service processing does not seem to depend on the development of the liberalization of metering or meter reading. The liberalization of energy supply is already a strong indicator for handling service processes in a collaborative way. The advantage for the consumer is that he can easily order services using a single point of contact – the retailer.

Assuming that the liberalization of energy supply is not revoked in the future, we can expect that the collaboration between retail and distribution companies will be extended for reasons of efficiency and will become more and more relevant in all liberalized energy markets.

### 2.2.10 Conclusions

To meet the requirements of our customers – especially DSO companies – to support them in implementing collaborative service requirements, we need to focus on the following needs. Even though in some countries service execution can be done by others, DSOs still have a need for support in processing service requests.

DSO companies need strong software support to be able to offer services in terms of products and to be able to bill those products. Also, the software needs to be able to execute the processes according to agreed terms and conditions for service offering, scheduling, execution and billing. This should include the possibility to bill their services based on predefined prices and periods to other market participants (e.g. retailers).

From a software perspective they need a sales and information layer, where they can sell their services/ products to customers and have all information about the service execution, the status and the bill available to be able to report to the customer (consumer, retailer or any other service company).

For simple handling (usability, user interface) and easy maintenance (process efficiency) at the lowest implementation costs, it should be possible to offer services in a unique way - that is independent of the type of service (meter reading, meter replacement, etc.).

DSOs should also be supported with software allowing them to set up portal solutions providing easy access to their offered services by consumers and retailers.

The next step towards efficiency in collaboration with retailers or any other market participants is the availability of electronic data exchange for receiving service requests and confirmations, reporting the status of orders, and billing the services to the retailer. The processing of the exchanged data should be highly automated.