



# Siemens Workforce Management

## Maximum Productivity for Your Field Force

After some decades of stability, the power and gas network owners are experiencing a phase of sweeping change. Capital and operational expense constraints are tightening. The mix of fossil and renewable generation sources is shifting and gas supplied from the North Sea is declining. Mergers and corporate alliances are resulting in expanding grid sizes. All these developments are presenting municipal and regional power and gas utilities with new challenges. In many cases, complex services and skilled manpower constraints are accelerating the need for change.

Streamlined processes for operating power generation, transmission and distribution equipment are key to meeting these challenges. They enable the delivery of first class supply services and at the same time realize economies of scale. Siemens

Workforce Management cuts down on the time and cost needed for repair and maintenance work. It also improves cost and data transparency, increases staff productivity and helps minimize error rates as well as technical disturbances. All in all, implementing a Workforce Management (WFM) solution can effect operating cost reductions to up to 30 percent.

### Dual cost pressures

Municipal and regional utilities are under pressure from two sides. On the one hand, they must cope with rising costs for raw materials and labor. On the other hand, they must now compete and collaborate with independent energy suppliers and subcontracting partners as political decisions have opened the energy markets. These challenges are further amplified by the lack of liquidity in financial markets which have restricted long term investment plans.



Increasingly municipal and regional grid operators are forming cooperations – for maintenance and repair for example – or merging in order to make full use of rationalization potentials. This gives rise to more complex distribution systems which require Workforce Management. Moreover, technical faults become increasingly complex as the equipment contains electronic components and software in growing amounts and/or when assets are sweated to beyond their natural lifetime.

And lastly, energy networks continue to require a significant amount of manual service work – from switching to fault clearance down to reading meters – where manual processes inherently create errors.

### **New requirements for more transparency and productivity**

Conventional processes using minimal IT support largely constrain flexibility when scheduling service, maintenance, and repair work. In addition, the transparency of data representing the technical and economic state of the grid is less than satisfactory and subject to interpretation. In order to redress this imbalance, grid operators need to:

- Streamline planning and scheduling of all service activities in order to increase the manpower productivity and speed up the service work
- Gather reliable and accurate information from remote sites and the field using dedicated applications on mobile devices connected to a centralized control centre in order to optimize maintenance and service processes

- Integrate the service processes into the company's business applications to accelerate billing to improve cash flow and reduce the risk of errors
- Ensure high technical and economic transparency of the distribution systems in order to streamline operations, maintenance and repair and to help with longer term planning
- Reduce environmental costs including carbon costs by optimizing vehicle usage within the utility or municipality

### **The answer from Siemens: Workforce Management**

Siemens Workforce Management (WFM) allocates the optimum number of engineers and service personnel including supporting resources (tools, materials) ensuring the workforce is at the right time and place to perform the scheduled services in the intended or agreed volume and at the planned cost. This is complemented by integrating the field force into the business processes with the help of mobile solutions. Workforce Management solutions from Siemens have the effect of:

- Significantly decreasing the total cost of service processes as well as their error risk
- Considerably lowering the operating expenses per "ticket" (maintenance, fault clearing, switching job)
- Increasing the service staff's productivity – as measured in number of jobs (scheduled activities and faults) completed per time unit per engineer or other service staff members
- Achieving a higher documentation quality and thus, improved cost transparency for the supply grid

- Raising the level of planned or agreed supply quality, thereby reducing the risk of additional cost for repairs and lost revenue as well as for civil and commercial liabilities (contract penalties, compensation for damages) and culpable breach of regulations.

A Siemens Workforce Management solution will result in streamlining the relevant processes and increasing the cost transparency of the network equipment. This includes:

- Implementing a centralized repair strategy defining a policy framework with specified measures, time limits and extents of documentation
- Radical reduction of the proportion of paperwork (extra service expenses), adoption of standardized operating processes
- Improved job and time management as well as faster job assignment and execution and on-site feedback
- Accelerating and improving the information flow from the field to customer care and to customers in case of disruptions and disaster situations
- Increasing information quality by integrating fault codes and check boxes as well as minimizing free text
- Enhancing cost transparency through system support for correlating work and material cost with installed equipment
- Increasing customer satisfaction and loyalty with the help of shorter response times and improved communications



### The components of Siemens Workforce Management

A Siemens Workforce Management solution comprises two main components. For these, applications are employed that are best suited for each case at hand.

Resource management solutions for maintenance, service and project execution (network construction):

- Planning and scheduling of jobs and resources (manpower, materials and tools)
- Representation of the field force activities as well as leave and absence time plans
- Qualification and safety management (e.g., driver's licenses, 30 kV switch operation authorization, ...)
- Automatic, immediate job forwarding to the field force
- Mobile data acquisition on site
- Integration into the ERP system

The choice of application per case in hand depends on a number of criteria including the nature and number of processes to be covered, call center and field service staff sizes, the desired degree of optimization, and the existent or planned system architecture.

A mobile workforce solution for the technical field force includes:

- Order transmission and processing (maintenance, repairs, fault clearance, meter reading, etc.)
- Entering job completion on site
- Spares management (demand notes, stock keeping)
- Job monitoring by the indoor staff (status reports)

- Feedback report generation
- Integration into the ERP system

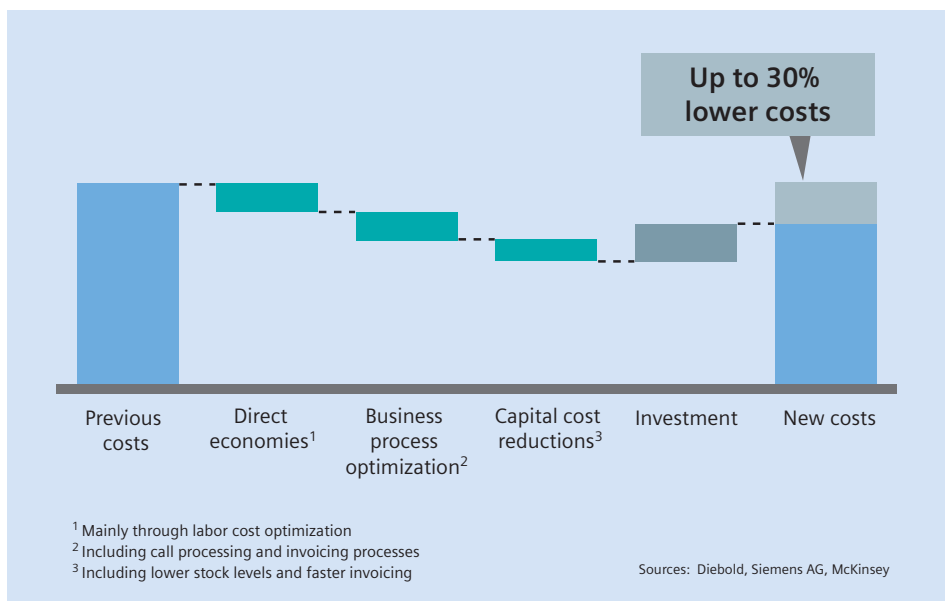
The selection of the best suited mobile workforce solution and devices depends on type and volume of orders, information to be forwarded (instructions, notifications, graphics, work reports, etc.), staff size of the field force, the office system to be connected to as well as the desired expandability.

### Comprehensive support from concept to implementation

Depending on the company size, the technical prerequisites and the extent of the processes to be covered, a Workforce Management solution may have to meet a wide range of requirements.

Therefore, in projects, Siemens will first look at the customer's given situation, at his IT landscape, and at his service processes and then work with the customer to define the objectives to be pursued. Using a holistic approach, we will clarify:

- Your company's demands on Workforce Management
- Which applications will meet these demands at optimal cost
- The customization needed to cover your requirements
- The transformation journey from "as is" to the "to be" environment
- Define the speed of change manageable within the organisation



Workforce Management solution and mobile field force solutions can lead to significant savings



Relying on our expertise in the fields of power generation and distribution on one side and as a system integrator on the other, we deliver:

Comprehensive advice on the potential of a WFM solution viable for your organization:

- Information and analysis workshops
- Cost, time, and quality optimization
- Integration into your ERP/CRM landscape
- And most importantly the transformation of people, processes and technology

A concept for working with you to realize and optimize scheduling and mobile business processes:

- A detailed specification
- Solution design

Realization by our experienced experts:

- Implementation
- Integration
- Rollout services

#### **How you benefit from Siemens Workforce Management**

By opting for Siemens Workforce Management, your company will gain far-reaching benefits. IT support for planning and scheduling your field force and its integration into your information processes will:

- Increase the productivity of both your field engineers and your indoor service staff
- Improve and speed up process procedures

- Enhance data quality and minimize error rates
- Advance the flexibility in repairs, fault clearance, installation and other services
- Increase the safety and availability of assets

When combined with a mobile solution, you will achieve direct economies – mainly in the area of ancillary labour costs – , reduced capital commitment through lower stock levels and faster invoicing as well as improvements in your operative business processes. As a result, economies in the order of up to 30 percent are attainable with the help of a Workforce Management solution from Siemens – depending on your current situation.

#### **Leveraging Siemens' deep experience and know-how**

Through Siemens' traditional involvement in energy for more than 150 years our organization is firmly rooted in the energy sector much more than alternate consulting and IT service organizations. This allows us to understand and clearly identify utility specific issues and processes at the very beginning and introduce energy best practices to resolve these. As a result, we can offer excellent solutions that are tailored exactly to your needs and will significantly increase your revenues. By partnering with us for your Workforce Management solution, you will benefit from our years of experience, our global background knowledge, and our deep familiarity with grid energy management.

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