

ENABLING TECHNOLOGY FOR OUTSOURCED FACILITIES MANAGEMENT

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SUMMARY: *Facilities management is concerned with the management of the working environment together with the delivery of support services to that environment. Through this process a large volume of relatively low value transactions takes place. Two case studies are discussed where technology has been deployed to significant effect in the form of a central support desk. This deployment is shown to have a dramatic effect on the efficiency and effectiveness of the core facilities management processes. The first case describes the use of this technology across a number of geographically-dispersed locations and the issues that the technology has assisted in overcoming. The second case describes the use of the technology on a single, large site. It contrasts the operating environment, but continues the theme of enabling technology and the way this can be integrated into standard operating procedures. Finally, the paper summarises the benefits that can be achieved by, first, harnessing and then integrating this technology within an outsourced facilities management environment.*

KEYWORDS: *outsourcing, service providers, IT, helpdesk, facilities, workplace, partnership.*

1. INTRODUCTION

Improving the delivery of facilities management services through the use of IT has been a recurrent topic over many years. More recently, attention has focused on web-enabled mechanisms that can make use of existing infrastructure – see, for example, McAndrew et al. (2005). Real-time job-reporting and tracking are now possible, leading to greater efficiency and effectiveness in the delivery of services. This paper focuses on the deployment of appropriate enabling technology within the facilities management environment. Facilities management is concerned, *inter alia*, with the management of the working environment together with the delivery of support services to that environment. Through this process a large volume of relatively low value transactions takes place. The aim of the paper is to show how appropriate IT support can significantly improve the quality and quantity of support services in an organisation. The paper is based on empirical study of two organisations undergoing large scale business process re-engineering.

The two case studies examine the deployment of technology in the context of a central support desk. The facilities management delivery mechanism and the part that this integrated technology plays in delivering high-quality services in a set of demanding locations are described. The first case covers the use of this technology in an environment where there are a number of geographically-dispersed locations and the issues that the technology has assisted in overcoming. The second case covers the use of the technology in a single, large location. It examines the operating environment, continuing the theme of enabling technology and the way this can be integrated into standard procedures. Finally, the paper provides an outline of the typical benefits that can be achieved by, first, harnessing and then integrating the technology within an outsourced facilities management environment.

2. IT IN FACILITIES MANAGEMENT

Facilities management could be regarded as the ‘poor relation’ (Atkin and Brooks, 2005) amongst support services that include human resources, finance and information technology (IT). Certainly, if IT investment in

facilities management were considered 10 years ago the facilities function may have had some space allocated on one of the company's main systems such as the IT helpdesk, but probably little else. More enlightened organisations might at that time have adopted some form of computer-aided FM (CAFM) system, but the spectre of running a computer-aided design (CAD) based application across a network would have been perceived as a high risk development. Invariably, such innovations tended to be relegated to the corner of the facilities manager's office on a standalone PC. Applications generally fell into two main categories: the first was built around a database engine aligned towards maintenance management applications and the second around a CAD engine aligned towards space management applications. This often meant that users wanting the functionality of both would most likely have no choice but to opt for different applications.

There have been many changes over the intervening period and the emergence of web-based applications has made the deployment of function-rich applications across the facilities management enterprise a reality. In practice, these are likely to represent extensions to the current IT service provision rather than a foundation for new application areas. The days of propagating standalone applications and services, as exemplified by the above reference to CAFM/CAD, have gone. The use of a web 'front end' enables access to parts of these applications by recipients of services irrespective of their geographical location. Moreover, there is reported to be acceptance by facilities managers that web-based applications and services are the way forward (McAndrew, 2005).

The convergence of technology has also driven down the cost of such applications. Wireless technology is becoming increasingly common in its use amongst facilities managers and, more recently, the use of 3G technology has made it possible to deploy some facilities management applications across existing mobile telephone networks. All of these initiatives have assisted the facilities management sector in moving out of the shadows and into the mainstream where the facilities manager can provide informed input into the decision-making of the enterprise, not least where managing change is involved. The particular need for managing people through change and for supporting decision-making is reinforced by Barrett and Baldry (2003), who make important connections with the use of IT and the information being managed.

Management information is vital to the facilities manager in maintaining control in what is a broad and multi-faceted role. Many organisations have experienced outsourcing to a lesser or greater extent and depending upon the structure of the outsourcing agreement will determine the level of management information required. In fact, it is management information that is always required over and above the detailed transactional information often provided (Atkin and Brooks, 2005).

3. CONTRACTUAL RELATIONSHIPS IN FACILITIES MANAGEMENT

A number of alternative contractual arrangements currently exist in the marketplace. In more recent years, the typical one stop shop or 'total facilities management (TFM) contracts' have given way to a more transparent partner sourcing approach. The idea that the client transfers its facilities operation to a single provider for a fixed annual cost has become less favoured. This is largely due to the lack of transparency in transactions and the lack of influence and control on both the choice of suppliers and their management. TFM has been replaced by an agreement whereby risks are shared and remuneration of the provider is fee-based outside the supply chain cost. Consequently, there is no incentive on the part of the service provider to increase costs since no financial benefit exists. In fact, one could argue that an increase in supply chain cost reduces the overall return achieved on the contract by the service provider.

An alternative approach, still favoured by many, is termed a managing agent role whereby the provider uses a management resource to manage supply chain partners, but the contractual ties remain with the client organisation. The provider then acts as the client's agent in administering the contract and managing the supply chain. In the subsequent case studies, the contractual arrangements represent two mechanisms: the first as a managing agent and the second as a facilities partner. These two cases are intended to illustrate different, but nonetheless equally valid approaches to the use of IT in enabling the facilities management function in the area of central support. The cases arise from the authors' work in providing professional consultancy services to the two organisations in question.

4. CASE STUDIES

4.1 Research methodology

The objective of the studies was to examine the organisation's information needs in the context of delivering facilities management services and the role that technology could play in improving its efficiency and effectiveness. The case study approach was selected, because of the need to account for the changes taking place over time. Alternative methods, for example a questionnaire-based survey, would not have supported a detailed examination of the organisations before, during and after the deployment of new technology. Additionally, the case studies reflect actual results of IT implementation and so are more than indicators of what might happen in the future: they are factual. The organisations were chosen for their willingness to cooperate in the studies and for their openness in revealing details to support the examination.

4.2 Sitel UK Ltd

Acuity was commissioned to carry out a facilities management audit across the property portfolio of a major contact centre operator, SITEL UK, a wholly owned subsidiary of the SITEL Corporation (a global business listed on the New York Stock Exchange). SITEL provides customer relationship management programmes for a range of blue chip companies and handles over 1,500,000 customer contacts every day. Naturally, the smooth operation of the contact centres is critical to its ability to generate revenues.

SITEL operates from four contact centres in the UK, which are geographically dispersed:

- Newcastle upon Tyne;
- Kingston upon Thames;
- Stratford upon Avon; and
- Watford.

In addition to the above contact centres, SITEL has a number of administrative and other support buildings. The total area of the SITEL property portfolio in the UK is approximately 14,000 m².

SITEL UK was formed by the acquisition of three independent call centre operators, each of which operated a major contact centre and was either carrying out facilities management in-house or through a TFM provider. Through research on the part of the SITEL board and the general managers of each contact centre, the objectives for facilities management within SITEL UK were identified:

- provision of a safe and healthy working environment;
- maintenance of facilities standards in line with corporate guidelines;
- reduction of facilities operating costs;
- transfer of commercial risk to third parties where commercially expedient;
- retention of control over facility operating costs and cash flow;
- flexibility to adapt to changing business needs;
- ability for senior management to focus on core business; and
- retention of trust at all times between the facilities management function and SITEL.

The performance of the in-house team and the TFM team was assessed against each of the above criteria with the results shown in Fig. 1.

Both the in-house approach and the TFM approach failed to meet the facilities management objectives identified by SITEL UK. After further analysis it was found that the failings were of a strategic nature in the operating model of each approach rather than a weakness in an individual's ability within the in-house team or the provider's performance.

As SITEL is also provider of outsourcing solutions it had a number of ideas about how the operational philosophy of a facilities management company could be shaped to meet its objectives. SITEL decided to adopt a new approach to the outsourcing of the facilities management function, which required a radically different mindset to implement.

	In-House	TFM
Safe and healthy working environment	Partially compliant	Partially compliant
Maintenance of corporate standards	Compliant	Partially compliant
Reduction of facility operating costs	Not compliant	Not compliant
Transfer of commercial risk	Partially compliant	Partially compliant
Control over cash flow and facilities spend	Compliant	Not compliant
Flexibility	Not compliant	Not compliant
Focus on core business	Not compliant	Compliant
Partnership based on trust	Partially compliant	Not compliant

FIG.1: Facilities management audit results

Acuity made the initial investments to establish the service, with a view to recovering this investment from new clients once the concept had been proven with SITEL. When the Acuity facilities management agreement with SITEL UK came into effect, 12 facilities management staff were transferred under TUPE¹ into Acuity which immediately took management responsibility for the services' provision of a number of contractors (service providers). The new agreement was based around three basic tenets.

1. Partnership agreement – development of a new form of agreement based upon mutual trust.
2. Operational methodology – separation of high value activities (provided by the facilities manager) from low value administrative duties (to be carried out by the support desk).
3. Technology – blending various technology platforms to enable clients to pay service providers direct, without duplication of effort between them and Acuity.

4.2.1 Partnership agreement

The initial facilities management audit identified that the TFM contractors were struggling to maintain trust in the working relationship. This dilution of trust was attributed to the structure of the working relationship between service provider and client. Specifically, it was difficult for the client to take advice without question when the provider benefited from financial expenditure. To overcome this obstacle, independence from the service provider base was considered to be essential. In the partnership agreement that was subsequently developed it was agreed that Acuity would be responsible for the procurement and management of service providers and suppliers on behalf of the client, but payment would be made directly by the client. The approach is, in itself, not particularly innovative; however, the degree of commercial risk accepted by Acuity within the agreement structure makes the partnership agreement unique.

The client is charged a fixed fee for services which include undertaking all planned facilities maintenance activities:

- workplace health and safety management activities;
- quality and value inspections of service providers performance ;
- facilities' condition inspections;
- procurement of service providers and goods' supplies;
- service provider management meetings;
- value inspection of service providers' performance;
- development of annual facilities budgets and quarterly forecasts of expenditure;
- production of monthly financial reports;
- production of weekly transaction journals; and

¹ Transfer of Undertakings (Protection of Employment) Regulations 2006 (UK)

- production of facilities operating budgets.

Providing a response to reactive facilities management issues:

- dealing with service provider non-performance;
- re-procurement of services due to service provider non-performance;
- providing a management response to plant and equipment failure; and
- providing attendance to health and safety incidents.

Providing estimates for minor business moves and projects:

- interpreting the client's brief;
- developing an outline specification; and
- providing the information necessary to enable the client to make a business case.

The model agreement described above could only be achieved effectively through electronic integration with the client.

4.2.2 Operational methodology

Through job evaluation and analysis of the facilities management function, it was possible to segregate low value administrative routines from value-adding activities. This was intended to ensure that Acuity's facilities managers would be able to deliver best value for money to clients by focusing efforts where most value could be generated.

As a result of this segmentation exercise, most Acuity sites are managed by mobile facilities managers, supported by a centralised support desk, site-based operatives and service providers. The original decision was based around the use of blue-collar mobile engineers and then was applied to the white-collar mobile facilities management sector. The set-up is illustrated in Fig. 2.

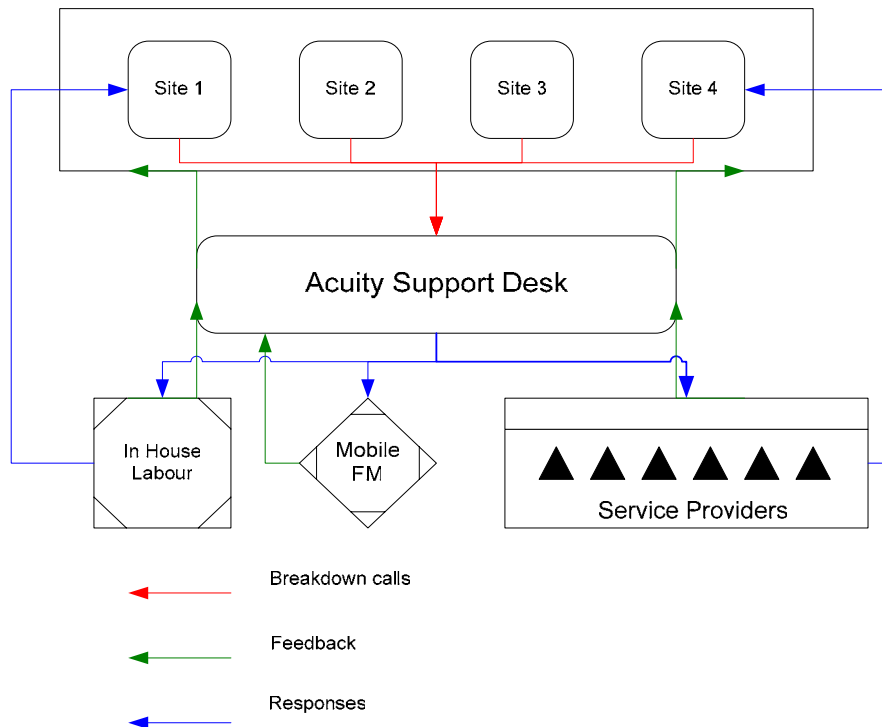


FIG. 2: Schema of the distributed support function

Central to the set-up is the support desk, where the operational workload of facilities managers is planned on a 52-week cycle. Planned facilities management tasks are incorporated into a 52 week plan and integrated into the CAFM system.

By structuring the workload of the facilities managers in this way, operational reports can be provided to clients outlining:

- completed planned facilities management tasks;
- outstanding planned facilities management tasks;
- completed reactive facilities management tasks; and
- completed project estimates.

The above report ensures that value is continually demonstrated as being added through the role delivered by facilities managers.

4.2.3 Technology – electronic integration

Fig. 3 illustrates how various technologies have been combined to enable integration between the CAFM system and the client's purchase ledger.

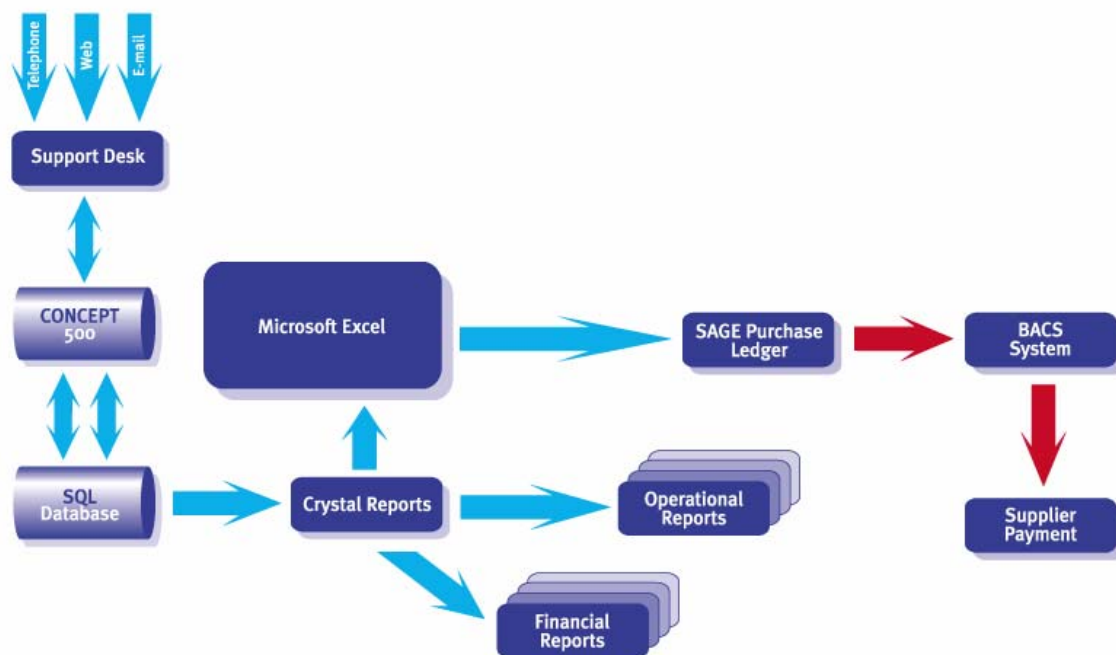


FIG.3: Schema of integrated functionality

The process is briefly described as follows.

- Client requests are received at the centralised support desk by web, e-mail, fax or telephone.
- Clients contact the support desk, requests are logged and the appropriate resource allocated.
- Purchase orders are raised within pre-set authorisation levels.
- Purchase invoices are authorised following a strict auditing and authorisation process.
- At a time period required by the client, a transaction report is produced to provide committed costs and authorised purchase invoice details.
- Common accountancy codes are used between Acuity and clients.
- The transaction report is emailed to the client's accounts department and is imported into the client's purchase ledger for direct payment by BACS².
- Financial reports are emailed to the client on the first working day following the end of the client's financial reporting period, normally monthly.

² Banks Automated Clearing System

These reports include details of committed and authorised costs with comparisons against budget on a period or year-to-date basis. There is a full ‘drill down’ facility to the cost code level within these reports. The technology utilised in this solution is summarised in Table 1.

TABLE 1: Technology utilised in the arrangement

<i>CAFM</i>	The functionality and flexibility of current off-the-shelf CAFM systems has been enabled by the exponential increase in computing power of modern processors.
<i>Email</i>	Email has revolutionised communications between companies. 75% of service requests from clients’ sites are received via email or through web-based requests.
<i>Web</i>	The web has become a very powerful communication tool. Clients now have the ability to log jobs and track their completion over secure intranets or the web. In addition, on-line financial reports, including a ‘drill down’ ability to cost centres, are also available.
<i>ODBC databases</i>	Open connectivity between databases is not currently regarded as new, but has improved the ease with which data can be exchanged electronically between companies. This feature allows data extraction from the CAFM system, which ‘sits’ on an SQL server and utilises import routines on the client’s account systems to exchange data.
<i>Standard software</i>	Proprietary products provide a universally-accepted platform across which information can be exchanged.

The integration of this technology allows clients to receive the full range of benefits associated with outsourcing, whilst retaining control over facilities’ budgets and cash flow.

SITEL employs approximately 2,000 people in the UK, all of whom make or answer telephone calls from one of their contact centres. Each contact centre is operationally critical to SITEL; consequently, there is a reasonable degree of resilience built into each location which includes:

- standby power generators;
- UPS systems;
- run/standby air conditioning systems in centralised communications room;
- climate control;
- access control systems; and
- fire suppression system.

Generally, a contact centre is approximately 3,200 m² houses 500 workstations and has staff restaurant facilities plus vending for breakout areas. Acuity manages all of the facilities services on behalf of SITEL UK through the combination of a mobile facilities manager and the centralised support desk.

The major areas of impact from using technology in outsourced approaches to facilities management are seen as:

- client satisfaction;
- best value for money; and
- professionalism.

Current outsourcing models are failing to provide acceptable levels of client satisfaction due primarily to TFM contractors’ inability to sustain trust in the working relationship with clients. In a UK facilities management market audit (Burgess, 2002), nearly 50% of clients who took part were less than satisfied with the performance of the companies they had appointed to provide an outsourcing solution to their facilities management. The model described here is transparent and flexible, so that trust is sustained throughout the working relationship with the client.

The model drives best value for money from three directions:

- fees relate to added-value activities only;
- avoidance of mark up on service providers’ and suppliers’ costs; and

- procurement procedures ensure that service providers are not simply sub-contracting work to third parties – independence from the supplier base ensures that facilities managers can retain a professional approach at all times.

4.2.4 Benefits

Throughout the relationship, SITEL UK has experienced significant benefits, both qualitative and quantitative:

- a reduction in facilities operating costs of approximately £22 m²;
- standardisation of facilities management strategies across the property portfolio;
- compliance with all outsourcing objectives; and
- a reduction in management costs associated with facilities of £6.50 m².

4.3 Sun Life of Canada (UK) Ltd

Sun Life of Canada (UK) Ltd is a life assurance provider that closed to new business in the UK in 2001. It operates out of a 9,500 m² building in central Basingstoke that is occupied by its outsourcing partners and will remain so for the next 20-25 years as the existing book of business runs off.

Sun Life outsourced its IT support and its ongoing administrative responsibilities, whilst entering into a 'sale and lease-back' arrangement on the building in 2002. The building is effectively a multi-let environment with an occupancy profile that includes four separate tenants. Under the individual lease terms, responsibility for the running of the facility remains with Sun Life, which raises a recovery service charge to the other tenants. The building has throughout been maintained to a very high standard, befitting the corporate headquarters of a prominent financial services organisation.

In 2003, Sun Life entered into a partnering agreement with Acuity under an initial three-year agreement for facilities management services. The extensive transition process included the transfer of 20 Sun Life employees under TUPE and the 'novation' of an extensive range of supply chain agreements. Following the transition process, full responsibility for the delivery of all facilities services throughout the building, including all demised areas, was taken by the service provider. This includes the management of the tenant relationships and agreement of annual service charges. Described here is the adopted approach and the benefits delivered.

The process of outsourcing the facilities management function for any client has the potential to create tensions that could increase risk of business interruption with a consequential increase in costs. For this reason, it was considered vital to the success of the contract that a carefully managed transition programme was designed and implemented. The programme translated the vision and objectives of outsourcing into a new set of philosophies, processes and systems, and applied them in a systematic way to ensure the successful implementation without risk of business interruption.

The overall transition process began during the mobilisation phase, but continued throughout the first six months of the contract. During this important phase, the facilities management team was reinforced with additional resources with the specific skills and experience in the management of change. Taking the outsourcing concept as the starting point, areas covered included:

- implementation and communication planning;
- operational audits of existing processes and procedures;
- process re-engineering of the existing processes and procedures incorporating the central support desk;
- staff surveys to establish skill levels and identify development requirements;
- risk and benefit analyses;
- detailed reviews of the specialist supplier base; and
- asset management and assessment of the building improvements that were required, together with the associated business cases and prioritisation.

The whole transition process was the subject of an intensive change management regime to ensure that all the issues raised were appropriately dealt with in a proactive manner.

One of the main objectives was to retain the ability to deliver high quality services continuously throughout this process. These services could have been seriously undermined by low staff morale, particularly when the

attention of individuals was distracted. Managing people through any change process has its inevitable high and low points. Often, expectations are set too high by the new provider wishing to rally the staff. These high expectations are subsequently not met, exacerbating an already fragile situation.

The success of the mobilisation process was particularly critical for Sun Life as this represented a ‘first generation’ outsourcing exercise, with TUPE implications and a relatively short timescale. Acuity provided a dedicated mobilisation team that operated in addition to, and in parallel with, the existing facilities management team. Its purpose was to establish and fully document the processes, procedures, communications, information and reporting requirements, so that the facilities management team could focus on the continuous delivery of services.

A detailed task list was prepared which allowed both parties to track and report on progress to plan, in weekly communication meetings, until both parties agreed that the process was complete. Once the transfer had been effected, work continued in reviewing working practices and the roles and responsibilities of the staff. Indeed, all staff were given the opportunity to contribute ideas and to identify areas where activities could be carried out more effectively.

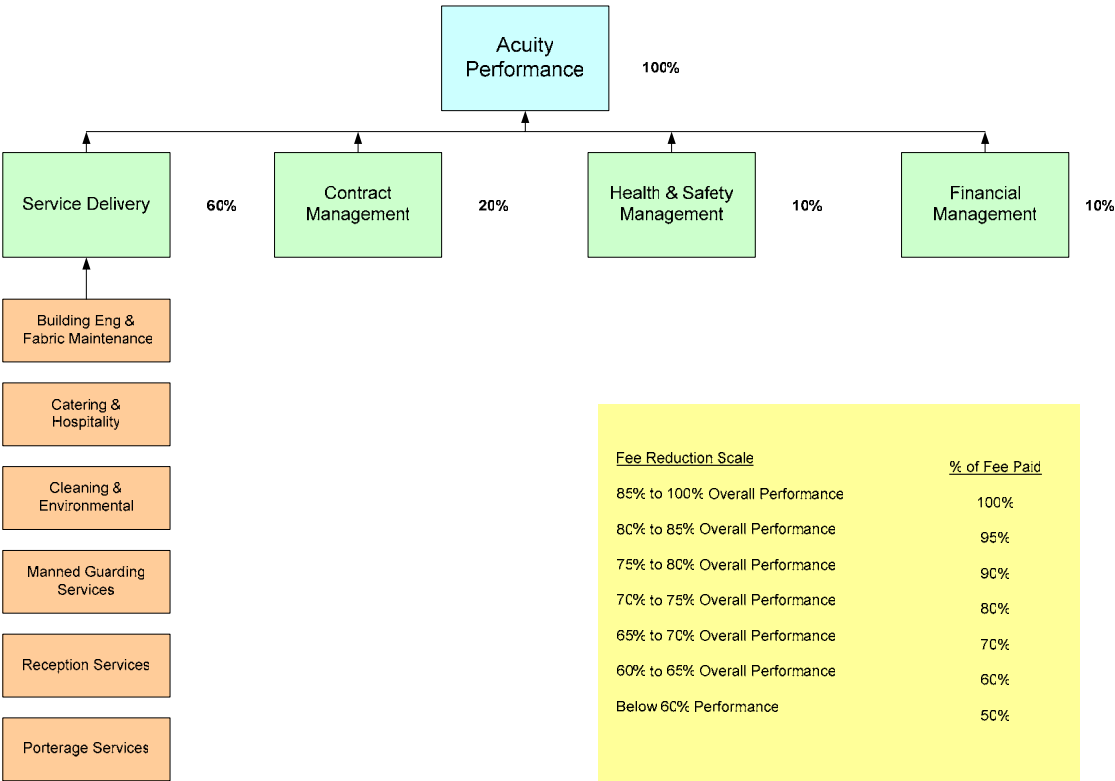


FIG. 4: Performance mechanism for services and fees

The structure of the agreement between the two parties continues to be one of a facilities partnership. An operating budget was agreed with the client so that the costs of the site-based team, facilities manager and suppliers were all recovered net. All service provider contracts are with Acuity, which is also responsible for all payments to the service providers. The management fee includes a recovery element for resources not dedicated to the client on a full-time basis, for example, the centralised support desk and the account director. A contribution towards overhead and profit was also included in this calculation. The fee is separate from total expenditure and Acuity therefore remains neutral in terms of the quality of service delivery. There is no incentive to increase overhead cost.

A proportion of the management fee is placed ‘at risk’ via a performance mechanism aligned to a defined service level agreement. The breakdown structure of this mechanism is shown in Fig. 4.

The operation of such a mechanism relies upon relevant and timely information being available. This is provided by support desk technology and processes to deliver this information and to compile a facilities' scorecard (Kaplan and Norton, 1994) that can be used to support continual improvement within the organisation.

In essence, each of the main service areas, as Fig. 4 shows, has a published service level agreement (SLA) that is specific to the client. Within these SLAs, an agreed set of key performance indicators (KPIs) is also established. This forms the basis of objective assessment criteria for each service, whether delivered directly by Acuity or through supply chain partners. A monthly score is achieved for each of the service areas and these are aggregated to give a performance result – typically the four areas shown in Fig. 4. These are, in turn, subject to further aggregation giving rise to an overall result represented as a percentage.

The administrative requirements of the site-based facilities management team are supported by the centralised support desk based in Keele (UK). This allows for central control of all reactive call handling, maintenance activities delivered on site and ensures prudent financial control over supplier and materials expenditure.

By the very nature of reactive facilities management, a key component is the ability to respond to a certain set of circumstances. For comprehensive measurement to take place, it is imperative that the centralised support desk is used as the initial point of contact. Employees of the client and its tenants are given the means to connect to the Acuity web site and the associated web module of the CAFM system. Once accessed (rights permitting), they are able to record their work request. Through the security access process, the system automatically inserts the contact details against the request. They are then required to pick the location and enter the nature of the fault. Once all information is entered the request is submitted and the user is presented with a unique task ID. This ID stays with the request throughout its life, providing a complete audit trail.

Additionally, a dedicated telephone line is maintained and requests can be lodged with the support desk for action. Once a request has been captured, by whichever means, an action will be triggered. This allows the 'clock' to start as a date and time identifier is automatically recorded by the software. The specialist service provider or Acuity employee is then contacted by the support desk to attend to the agreed SLA and a job instruction is despatched via email or fax. For more urgent jobs, all required (human) resources are contacted by telephone and a copy work request is sent. It is then the service provider's responsibility to email or fax back the completed work request. The minimum information required upon job completion is:

- date, arrival and departure time, engineer/operative name and signature;
- asset information and the work carried out (including asset number where possible);
- any chargeable materials or consumables used; and
- outstanding tasks required to complete or resolve the work request.

On receipt of the completed work request form, the support desk operator will then update the unique record to include:

- date when the job was completed;
- set the level of completion (i.e. temporary fix, parts required etc); and
- close the job.

All work request information is issued and then stored electronically.

The account director continues to spend a significant amount of time coaching site staff to provide the support and assistance needed to move from an 'in-house' cost centre to a contributing profit centre. Even so, the benefits to the client are clearly visible and include:

- performance of each area up by more than 20%;
- improved productivity of transferred workforce;
- increased control of third party service providers;
- transparent cost reporting and more accurate forecasting; and
- reduction in facilities costs reflected in a service charge of 15%.

The contract is now in its third year and has been extended. Performance across all areas has improved from the start of the contract and the backlog of maintenance issues has been corrected, with performance scores alone demonstrating the benefit of deploying appropriate IT. Staff have remained, with a site-based manager who has developed his skills and successfully made the transition to a broader operations manager with responsibility for a profit and loss account.

5. DISCUSSION AND CONCLUSIONS

The first case describes the use of technology in an environment where there are a number of geographically-dispersed locations. The second case describes the use of the technology in a single, large location. The operating (business) environment is different, but the enabling technology is more or less the same. This is, perhaps, hardly surprising as the core process, i.e. the helpdesk, is common to many industrial and commercial businesses. What differs are the operational parameters and the ways in which the new system or arrangement can be integrated into standard operating procedures. Understanding the organisation at both the strategic business and operational levels is the key to deploying appropriate technology. Failing to understand the context within which the new system will operate would be to ignore the reality of the operating environment. Clients and end-users deserve the benefits generated by ubiquitous technology so long as their needs and business objectives are not compromised by 'solutions looking for problems'.

The facilities manager has a broad and diverse range of tasks to perform and manage. If he/she is to maintain control of the environment then relevant and reliable management information must be available for decision-making. Added to this need for information are the commercial pressures of the facilities management partner and the increased rigour with which the facilities manager is often scrutinised. This makes the use of appropriate technology not merely an option but an essential component. If the level of reporting required by clients is not to constitute a resource burden then investment in the right technology is essential.

Whilst the two case studies share common technology, albeit deployed in different environments, it should not imply that a generic solution exists for all situations. It is, nonetheless, suggestive of the likelihood of finding a solution that is widely utilised and validated in various industrial and commercial contexts. Arguably, the more important issue is to understand the nature of the problem that has to be solved, or rather its characteristics, and then to match that/those with the functionality of tried and tested solutions. At the end of day, it is the degree of objectivity and analysis of client and end-user needs (in this case, senior managers, facilities manager and employees) that drives the exercise and points towards an appropriate solution.

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