



Service Management

White Paper

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Abstract

Many organisations live or die by the level of service they provide to their customers. Service provision may be a large part, or even all of the business' activity. Whilst it is essential to have the relevant technical knowledge to be able to provide the service it is just as important that the delivery of that service is well managed. Without a well managed set of processes in place it is easy for service levels to fail to meet customer expectations and for profits to be reduced. A service management system provides a method of improving delivery, measuring its effectiveness and improving profitability. This white paper discusses some of the ways in which this can be done.

What is Service Management?

An increasing proportion of work undertaken by UK businesses involves providing customers with a service - even traditional manufacturing and construction industries are focussing more and more on the after-sale service element of their work. As customers become more demanding and expect increasingly rapid responses and high quality work from their suppliers, it is usually the service provided rather than any physical product sold that determines how happy your customers are.

Some companies are, of course, purely in the business of service delivery and realise the importance of managing it properly, however for many non-service focussed organisations the approach to service delivery can be very ad-hoc and evolved rather than planned. Without proper service management it is likely that however well resourced and skilled your organisation is you will fail to deliver an optimum result. Good service management should result in:

- An appropriate level of service to the customer
- Appropriate cost and revenue levels for you
- Improved customer retention and referral
- Motivated and busy staff

To achieve these aims a business must carefully define what it wants to do with its service business. Is it a source of profit, or is it a cost that has to be kept within a budget? What level of service do customers expect, and is that the same for all customers? How can we make optimum use of the resources (people and equipment) that we have? The relative importance of these issues varies widely from one industry to another and each organisation must consider where their priorities lie as some aims can be mutually exclusive, for example, cost of service delivery and quality of service.

Once the aims are set, how the service should be managed can then be addressed. When an organisation reaches a reasonable size it will no longer be able to manage its service provision simply through individuals doing ad-hoc work or by using a basic paper based system. When a number of people are involved in service provision, particularly if they are not office based, and the number of issues being dealt with increases, it becomes essential to consider using an IT system. Some suitable software can, if properly selected and configured, make the difference between an average service company and a great one. Dealing with the monitoring of individual issues that have been reported, allocating staff to deal with them and measuring the

financial implications and service levels being provided are all down to data capture and analysis, which is what IT systems are ideally suited to. Sometimes these solutions are referred to as Service Management Systems and sometimes as Field Service Systems. You can find standalone Service Management Systems, systems that are integrated into core financial systems and systems that are part of CRM solutions. Whilst there are many common themes in most of these systems there is a huge diversity in their capabilities and the situations they are designed for.

The rest of this white paper looks at some of the specific issues that arise in service management and how a suitable IT system can assist in that management.

Maintenance vs Responses

One of the key distinctions between different service provision models is whether they are pro-active, maintenance based or reactive, response based models. If, for example, you provide water coolers to offices then you might provide a maintenance service model where you visit your customers to service their water coolers every six months. On the other hand, you might sell mobile phones and receive calls or visits from customers with problems, in which case you are providing a response based model. Most companies provide a mixture of both forms of service model with typical examples including garages, IT companies and photocopier providers.

These two different models require different processes to deal with them successfully and efficiently. If you provide a reactive model then the speed of response, the effective resolution of the problem and the manner in which it is done are the key drivers in virtually all cases. However, with maintenance service provision the key drivers are often efficiency and reliability. This clearly leads to different priorities in the way the services are managed and resourced and recognition of this fact is very important. For those organisations that provide both response and maintenance type services, differentiating and managing these services adds an additional level of complexity to creating a single service provision system and team. In practice you often find that separate teams of people, or at least a rotation of people between the two roles are set up, but a single system is implemented to manage everything.

Some Service Management systems show strong leanings towards either the reactive or pro-active approaches and will have deliberately been designed in this way. Often this is as a result of the industry they are designed for, an example being a helpdesk system for IT companies which is very much a response focused system. The more comprehensive packages are usually capable of dealing with both reactive and pro-active services but this needs careful investigation and checking before you commit to a new system.

Even when a suitable system is identified you will need to configure it appropriately, make sure it matches your processes and helps you achieve your aims, be they improved efficiency, quality levels, profit or any other targets you may have set yourself. A number of key areas of functionality that you may need your system to provide are now discussed, each of which will be prioritised largely according to whether you are focussing on a pro-active or reactive model and what your aims are.

SLAs & Escalation

A Service Level Agreement (SLA) is an essential part of some service provision contracts, for others it is non-existent and for many it is a one-off verbal agreement for each job that is done. In essence an SLA sets out what the customer can expect from the service you are providing. It may relate to the quality of the service provided, when the service will be provided or how quickly the work will be completed. In short, it is about a set of guarantees that the customer gets for the service you provide.

A day-to-day example of a verbal SLA is when you take your car to the garage and are told that the service on it will be done that day, with the car ready for you to pick up by 5pm. Many similar consumer facing services provide such a verbal SLA although the SLA isn't always treated as the guarantee it should be!

When you start looking at SLAs for contracts dealing with businesses rather than consumers it can become a lot more complicated and a lot more important. Often the SLA is the key part of any service contract between two businesses. When deciding what an SLA should consist of, you have to consider three key things in the following order:

- What are the important attributes of the service that are being provided?
- Can they be measured in an agreed and standard way?

- What is an appropriate target for each measurable attribute?

It is important to note that the only 'real' components of an SLA are measurable, quantitative ones - anything else is usually irrelevant. This implies that careful records must be kept and this requires an appropriate Service Management System to be implemented. If you are the supplier of the service you will be suggesting the attributes of your service that can be measured but it is essential that you are able to explain to your customer how the measurements are made, what they mean to the customer and that you make them in a reliable and consistent way. Again, the best way of demonstrating this is through an appropriate Service Management System that makes the measurements as a by-product of the way in which it is used.

Agreement over what should be measured can be straightforward for certain types of service provision. For example, if you are providing a call centre service then you might agree that you will answer 96% of all calls within three rings. On the other hand some measurements may be more subjective - if you agree to fix 80% of all problems within an hour of them being reported, who determines when the problem is fixed? For complex problems, for example those involving computer equipment, it may not be immediately evident whether the problem has been fully resolved. Always try to simplify SLA measures as much as possible and select an IT system that will actually be able to report against these measures. You may need to make sure that the system you select is very capable in this area - if a potential client requires a particular measure as part of their SLA and you aren't able to report on it due to system constraints, it may cost you the contract.

The most common types of measures in an SLA are time related ones - usually either a target 'response' time or a target 'resolution' time for all service calls made. A 'response' time is typically the time between a call being made by a client and when work is started on it and, obviously, the 'resolution' time is the time from the call (or sometimes from the response) to the problem being resolved. As well as, or instead of, specifying resolution times some SLAs will also specify that if a certain time limit has been reached on a call and it hasn't been resolved that it should be 'escalated' to a more senior member of the service provider's team. The idea behind this escalation is to make sure that the problem is then given priority to ensure that it gets quickly resolved. It

may even be that you will have two levels of escalation within an SLA. If you are likely to need escalation clauses in your SLA then you must select a software package that will support this functionality. Typically, you will not only want the ability for a call to be automatically escalated when necessary but you will want the system to notify the senior team member who the call is escalated to via email, pager or SMS message to ensure it isn't missed.

One important consideration when evaluating whether a Service Management System will accommodate the time measurements for the SLAs you (will) have in place is how it calculates elapsed time between a call being placed with you and the problem being resolved. It is no good if the system says that the time between a call placed at 5pm on one evening and a response at 9am the next morning is 16 hours if your service is only provided between 9 and 5. This sounds obvious but many systems won't support this. Also considerations such as weekends, bank holidays and shift patterns have to be taken into account when calculating elapsed time for checking SLA compliance.

Issue Assistance

Of course, a Service Management System shouldn't just be about recording what you do and whether you do it well enough to meet your obligations to your client. It should also assist in the actual service provision itself as much as possible. Some software provides very little help in this area at all and this suits many organisations, but other systems have an extensive set of features to help your employees fix a problem as speedily as possible.

One of the most common and frequently used techniques applies when you are servicing a fixed set of items, be they cars, machinery, computers etc. Every time an issue is raised on the system it will be linked to an item on a system maintained asset list. This will automatically allow your employees to see all previous issues that have been logged against that item and how they were fixed. As well as quickly finding a resolution if this problem has happened before it will, via suitable reporting, help pinpoint items that have recurring faults and ensure that a full asset register of all maintained equipment is kept.

A simple extension of this feature would also allow you to see problems that have occurred on similar items. For instance, if your business maintains photocopiers you will probably look after many copiers that are the same make and model. If you can quickly look through all similar faults on identical copiers then you are likely to

quickly find a resolution to your problem – after all there are only so many ways that something can fail (expect possibly computers!) This ability to search through previously logged calls can be a significant time saver if implemented properly and can help make the service supplier more efficient and provide the customer with shorter problem resolution times.

Some systems will go further than this and effectively incorporate a full knowledge management system into the software. As well as simply listing calls for the user to look through, intelligent searches and matches will be available so the system will automatically try to find problems that the software 'thinks' are the same. Whilst not 100% accurate, in some circumstances this can provide still further improvements. The application may also allow you to store and search on other materials such as procedure guides, manuals, diagrams and other electronic documents. One excellent example of this is Microsoft's database of problems and resolutions for its own software which some specialist IT Service Management Systems can interface to.

It is important to take into account the level of relevant knowledge of your staff when selecting a system and changing processes. If all issues are dealt with by people who consider themselves 'experts' in their field then they will resent too much system intrusion into the process of solving the problem. On the other hand if you employ staff who have less knowledge then they will probably welcome, and your customers benefit from, as much automated guidance as possible. The latter case is common in larger support environments and call centres where the first person contacted may not be an engineer or expert who can necessarily solve the problem. Such 'first line' staff usually have two key duties – to record as much information on the system as is thought to be needed at that time and then solve the simple problems or let the system pass it on to an appropriate expert on the second line of service provision. If you operate such a system then it can be useful to implement a system that prompts first line staff to make sure they obtain the right information and also, where possible, guide them automatically to provide solutions to the simple problems that recur frequently. An example that is well known to most of us of this sort of arrangement are the companies that provide road-side breakdown assistance. When you phone up you will be asked a standard set of questions to determine where you are and the nature of your problem before a second line person (the engineer) is dispatched to you. If you provide a support service with a significant volume of

standard issue types then it is likely you will operate in this manner and implement a software system that supports it. If, on the other hand, you deal with complex calls that are all handled by experts and you implement the same procedures and software you'll probably find most of your staff leaving.

If you have a large support team it's also important that you use your resources correctly and effectively. Many systems will allow you to define areas of expertise and rate issues to specify what expertise they require. This can be automatically matched to the information you provide about your staff's knowledge to help ensure that the most appropriate, available individual is dealing with each problem for your customers. It can also help identify any resourcing problems you may have if particular call types are not being dealt with quickly enough due to lack of staff availability.

One final area to consider for some service organisations is remote diagnostics and support. This isn't applicable to many industries but is becoming a significant competitive advantage in sectors such as IT. If you can electronically connect to the equipment you are supporting, through a direct-dial modem or the internet you may be able to diagnose and even fix the problem from a PC in your own office. It may seem only of relevance to the IT industry but at least one major car manufacturer has now put this technology in some of its luxury models so that remote engine diagnostics are possible using a mobile phone. Certainly it's unusual at the moment, but it is likely to become increasingly common.

Scheduling

If the service work you undertake has a significant proactive rather than reactive element then you will no doubt be aware of the importance of scheduling your work. The difference in efficiency that can be achieved through careful scheduling of regular maintenance work can be the difference between making a profit or a loss on a contract you take on.

Consider a simplistic, fictional example where you have to maintain domestic gas boilers for a housing association and ensure that each one is serviced annually. If each service takes an average of one hour and the average travel time between jobs is 30 minutes then each engineer might service 25 boilers in a week. If improved scheduling is achieved through the use of a Service Management System and the average travel time is reduced to 15 minutes then the same engineer will service 30 boilers a week – that's a cost improvement of 20%.

Of course this cost improvement comes at a price and will require more sophisticated software which will have to semi-automate the scheduling process if possible. It will also usually require travelling engineers to have mobile connections to the system and this is discussed later in the white paper.

In reality, optimum scheduling is virtually impossible and all kinds of unforeseen problems happen in the real world. In our earlier example even the best laid plans are not going to deal with people not being at their house when you turn up or specific problems with the boiler that turn the usual one hour maintenance into twice that. However, there is no doubt that a suitable system can make a real impact on the costs of routine maintenance work.

Contracts & Charging Models

The variety of ways that service companies use to charge for their work is astonishing with variations on themes such as time & materials, fixed price, cost plus and call out charges being among some of the more common methods used. Another approach that is occasionally seen is to charge the client a percentage of any cost saving or improvement made for them, so a telecoms company might charge a percentage of the cost savings they have made for their clients as part of their fees.

It isn't at all uncommon to see service companies ending up in a situation where they bill each of their clients under very different conditions with some on fixed price, some on time and materials and so on. This is a natural result of the negotiation process with each client and having to offer a competitive service at the time the contract is taken. Even if you don't have this situation now it is likely that it will arise in the future. For this reason it is important to consider the ways in which your software can handle the revenue side of your contract. You should be able to operate multiple contracts for each of your clients and invoice each in a different way – it is quite common to have a fixed price equipment maintenance contract with a client and to separately provide time & material invoicing for work that falls outside that. The last thing you want is to be severely limited by what your systems can achieve when it comes to negotiating and winning a contract.

Other special situations that you may need to handle within a contract include penalties resulting from a failure to meet SLAs and being able to provide an 'open books' contract when you are operating a cost plus system. These situations, and other similar

examples, are often handled manually outside the system but can sometimes be automated.

Probably the most important thing any system can provide is a mechanism to ensure that you get accurate sales invoices out as soon as possible. Ensuring that they are accurate and not queried by the customer whilst keeping your work in progress as low as possible and you cashflow healthy is key to any successful service business.

Timesheets

'The people are the most important thing in the business' is certainly a well-worn cliché but there's very good reason for that being the case, particularly in a service business. By definition, this means that the most important thing you can measure in such a business is the time your employees spend being productive and earning money. This makes the timesheet system one of the key components of almost all Service Management Systems.

One of the most difficult aspects of electronic timesheets are not the figures and analysis they create, but getting the information captured in the first instance. With office based staff it can be relatively easy to get them to enter a timesheet on their PC but for those who are partially or completely mobile it can be a more difficult proposition. There are usually three possible solutions. The 'traditional' method is to get paper based timesheets submitted to the office where they can be entered by administrative staff, although a possible improvement may be to consider scanning them in and using OCR software. A second route is submitting the information via the internet – with most staff probably having access from home or possibly from clients' sites this is usually the most appropriate, low-cost option. The ultimate solution is obviously to use mobile devices such as PDAs and smartphones. As 3G technology becomes more ubiquitous the possibility of having instant, fast access to the entire Service Management System from anywhere can become a key competitive differentiator.

Financial Measurement

In virtually every service business there are good contracts and those that are more trouble than they are worth. There are all sorts of reasons contracts may be taken on that prove to have too low a margin or are unprofitable, varying from inaccurate initial quotations to troublesome customers to completely unforeseeable problems. What is surprising though, is the number of service contracts whose profitability is not even properly measured.

A full Service Management System should be collecting all the key data you need to report on profitability per contract – sales invoices, purchase orders/invoices, staff time etc. If you are accurately recording and collecting all this (and you should be) then some relatively simple reporting should provide the information you need to judge the financial contribution of each of your contracts and clients to your business. In fact, many solutions have fully integrated financial solutions of their own which can provide the entire accounting requirements for your organisation. If a solution doesn't provide this then you will probably want to consider how it can be integrated into other solutions that do provide the functionality. Complete integration with your financials generally enables you to have much smoother invoicing and reporting processes which, as we mentioned earlier, can help reduce unbilled work in progress and improve cashflow.

Document Management

If you deal with a large number of service calls then it's likely that you also deal with a large amount of paper work. Each job can end up generating quotations, purchase orders, estimates, customer sign-off documents and many other pieces of paper depending on the nature of the work you do. The storing, retrieval and generation of all this paper can be a time consuming, costly and error-prone exercise. The bad news is that eliminating all paper work is unlikely for most organisations, but the vast majority can either be replaced with an electronic equivalent or at least the paper version can be scanned for improved storage, retrieval and processing at a later date.

When you look at implementing new processes and systems within your service delivery team you should try to identify all the possible documents that you will generate or receive. For documents you receive you may have little choice other than to accept paper based versions, particularly if you are dealing with consumers. However, you may be able to get people to email electronic versions and if you deal with sufficiently large contracts then there may be more advanced options available to you – these are discussed later in this white paper. Where you do receive paper documents you may have the opportunity to scan them in and store the electronic copy so that it can be instantly accessible from the relevant parts of your Service Management System. For example if you get a signed sheet from your customers on the completion of every job you could scan it and store it against the job details as proof

that the job was done to the client's satisfaction. Whether scanning documents and storing them in this way is worthwhile needs to be evaluated on a case by case basis and requires a careful evaluation of the time and other costs required to operate a paper based against an electronically based system. If you proceed down the scanned document route you need to consider the purchase and support costs of the system and the time required to scan and accurately index each document. On the flip side of the coin, for a paper based system you need to think about physical storage costs for all the paper and, more importantly, the time lost in retrieving the documents when they are required. There are also 'soft' elements to take into account, in particular whether instant access to documents would allow you to provide a higher quality of service, particularly if those documents are available via the internet or on mobile devices. Clearly the higher the number of documents and the more frequently they need to be accessed or searched, the more likely it becomes that an electronic document will be the most cost effective route.

For documents you create you should always look for electronic generation, storage and transmission wherever possible with as much of this being automated by the system as feasible. You should look to implement a system that assists with the creation of all of your standard documents or consider changing some processes to enable this. Every minute you save on creating and chasing documents when you deal with a service call can lead to a significant increase in the profitability of the overall contract with your client.

Selecting a System

If you choose to invest in a Service Management System you will not be doing so lightly – there is not only the cost of the system to bear in mind but also the upheaval and change it will undoubtedly create as you improve your processes. Once such a system is in you will not want to replace it with another one very quickly – you'll certainly improve it, but you won't want to start again.

You will need to ensure that the software and its vendor have a long term future which requires some research into the financial situation of the vendor and finding out details of the product's future roadmap. If you can't get reassurances on that future then you may need to look elsewhere – is sufficient R&D spend going to be made on the solution you're investing in? If you are going to use an IT services company to implement the system for you what is their financial situation? Are there other companies who could support the system in the future?

Equally importantly, you need to evaluate the technology that the system is based on. You need to select a system that is based on a mainstream technology platform wherever possible for a number of very good reasons, including:

Maintenance costs. Once your system is in place you will need to support the surrounding technology such as operating systems, networks and databases. Whether you do this with internal or external resources, the rarer or more dated the technologies you choose, the more costly the necessary expertise is likely to be in the long term.

Interoperability. Very few IT systems sit in isolation and it is likely that you will need to integrate your Service Management System to an existing in-house system such as financials, payroll or timesheets. From a commercial point of view it is probably even more important that you can interoperate or integrate with your clients' systems for electronic transfer of data. Key technologies to look for in this area include XML data transfer and web services.

Adapting to new technologies. New hardware and software advances deliver new opportunities to organisations all the time. If you choose a current and popular technology it is likely that it will be adapted to work with these new technologies. Obvious recent examples include the ongoing improvements in internet technology and availability of sophisticated, 3G connected mobile devices. Both of these developments can provide a service company with a competitive edge, allowing services such as internet self-help, customer issue logging/tracking, instant travelling engineer allocation and mobile access to Service Management Systems.

Future proofing. You need to ensure that all of the technology components used in the system will be supported or upgraded by the vendor in the foreseeable future. It's all very well having the application supported, but what happens if the database it runs on is obsolete?

Summary

Service provision is key to many organisations and takes many, varied forms and its management can range from the relatively simple to the highly complex. There is a similarly wide range of Service Management Systems on the market, some of which are highly specialist and designed for particular industries whereas others are more generic and adaptable to different situations. It is important that you consider how you can best provide your services and what processes should be being used and then look for an IT solution that will help you deliver that. You can't put the cart before the horse – start by documenting what you want to achieve and then look for some software that will help you deliver that.

About this series

The world of IT is very varied and continuously changing. Trying to stay abreast of all the latest technologies and their potential implications can be a full time job in itself. The aim of this series is to explain the business implications of the technologies without the jargon. By understanding how the technology could affect your business you are in a better position to decide if it is a valid investment.

These white-papers deliberately avoid becoming too heavily involved with the finer details of the solutions in question; they also avoid focusing on products. For those who would like more technical information or product information it can be found at our website, www.perfect-image.co.uk. Here you can also download previous white-papers and keep track of our other events and publications.

About Perfect Image

Perfect Image are a Newcastle upon Tyne based IT Solutions company. Established in 1991 we have extensive experience in adapting leading technologies to meet the unique needs of individual businesses. We are the North East Based Microsoft Business Solutions Partner and we pride ourselves on continuing to operate at the leading edge of new technology and developments.

At Perfect Image our strength lies in our commitment in understanding the needs of your business. Every organisation is unique and we believe that an IT solution can only be successful if it is tailored to meet those individual needs. For this reason, before a single line of code is written, we will aim to fully understand your business, your current situation and your future goals. Only then can we advise on the best solution for you. If no appropriate third-party application can be found then we can customise an existing solution or develop a completely new one from scratch. The key to our success is making the technology work for you.

We have carried out projects for organisations such as

Bellway Homes	British Airways	BT
ONE North East	Northern Film & Media	Cenelec Standards Inspections
Fone Logistics	Heating Spares & Services	New County Roads Management

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