White Paper

How to calculate the budget requirements and estimate return on investment for your service management software

Executive summary

Purchasing a service management software solution is no simple task. Managers can't scribble out a shopping list, clip a few coupons, and stroll down shelf-lined aisles looking for daily specials. Even shopping for a high ticket item, like a new fleet vehicle, is an easy feat compared to investing in software. Software doesn't have tires to kick. You don't get to take it for a quick spin around the block to see how it accelerates or handles a curve.

A business system purchase requires extensive due diligence and advance planning. If you are considering a software purchase, now is the time to begin the preliminary fact-finding and needs analysis. This white paper was written to help service managers make a case to the IT department and CFO to upgrade existing systems or make new software purchases to solve their service operation inefficiencies.

You'll find it helpful whether you are considering a complete enterprise solution, a service life cycle module or are uncertain what type of solution would best meet your needs. Defining needs is one part of the process covered in this paper.

And, there's more. Customer service and productivity issues also have to be translated into a different language—one that uses dollar signs instead of verbs and ratios rather than adjectives to deliver a message that will persuade the top decision-makers to invest. You'll need to define your pains in terms of dollars, impact and profit margin. How else can you estimate Total Cost of Ownership (TCO) and Return on Investment (ROI)?

If these terms seem far removed from the vague "We need a better way to do this" realization that got you started thinking about a software purchase, don't worry.

Table of contents

There must be a better way

Are you ready to assign dollar values to your frustration and find cost effective solutions?

We know you didn't wake up one morning with a dramatic epiphany and proclaim, "We need new software for our service operation." It started with a subtle gnawing concern somewhere in the back of your mind that the inefficiencies you were battling were actually becoming dangerous. Perhaps the frustration over delays, errors, and gaps in communications was starting to become overwhelming. Perhaps you started to notice that these issues were affecting customer retention and wondered what to do about it. Is there anything you can do? Should you? Perhaps, you're still there—at that "wondering and worrying" stage. If so, you're not alone.

It's not always clear when a new solution is going to be cost effective or offer a ROI that is acceptable to top decision-makers. Several hard-to-define factors, such as frustration level of employees and risk of losing valuable customers, make it difficult to plug non-disputable numbers into a projected profit return analysis. Some terms may need to be defined or added to the corporate vocabulary. What exactly constitutes good service? Just how much is each satisfied customer worth to the company?

There's also that giant question mark that looms over any project: Will it succeed? Will a new software initiative cure every problem that the company faces? You don't have to go far on social media blogs to find discouraged managers lamenting about the woes of assorted implementation projects that went sadly askew or fell short of lofty expectations.

Lack of confidence in research data leads to stagnating indecision.

Find time to resolve issues before they jeopardize customer retention

Uncertainty over the likelihood of success often keeps well-intentioned managers thinking they can "stick it out a little longer" and make do with the system that was handed to them. It's easy to get stuck in a never-ending loop of frustration and inefficiency when you are continually forced into high-adrenaline reactions to one crises situation after another. It's hard to catch your breath, let alone take an objective step back to review the situation.

Ironically, this hectic pace often makes it difficult for managers of non-efficient service departments to find the time to research how to become more efficient. They are too busy chasing down late service trucks, searching for parts that are missing from inventory and apologizing to disgruntled customers.

Those difficult conversations with customers can provide the much-needed wake-up call to take some definitive, research-based actions—rather than settling for short-term, stop-gap fixes.

Whether you are one of the managers who is stuck in a holding pattern, uncertain if you want to jump into a full system overhaul or one who is just starting to wonder if there is really is a better way of managing the service processes, let's begin by taking a closer look at ways to objectively analyze needs.

Identifying profit-affecting issues and estimating bottom line impact

A two-step implementation process allows time for your team to learn the basics of the new system before you undertake major process changes

We've already touched on some of the emotionally-charged issues that can motivate an evaluation process. For meaningful action to take place and for the company to move into the budget planning stage, however, it is important to move past those anecdotal instances, vague generalities, and gut-level hunches. It's time to take a serious look at the hard financial data.

Budget planning requires translating your headaches and potential solutions into accepted accounting principles. Not only will this help you cost-justify your ideas to the managerial team, but it will also help you refine your strategies and prioritize which areas offer the most likelihood of early pay-back and momentum-building success.

Setting realistic expectations

Several factors will influence the payback cycle. Your company's previous experience with implementation projects will certainly be a factor, as will your team's ability (and willingness) to embrace new processes, commit time to training, and firmly establish this as a company-wide priority. If this is your first initiative to move past manual spreadsheets and largely paper-based systems, start with conservative goals and projections for improvements.

In most cases, analysts will recommend you make an "A-to-A" transition of initially using the software to perform the same processes your team is already accustomed to performing. Once they are comfortable with the basics of the system, they will be better prepared and able to refine processes and implement any drastically new workflows that the software functionality enables. Although this two-step process may slow the ROI, it will make the implementation much more comfortable to the team.

What does this mean to you as you begin preparing for budget planning? You need to recognize your company's capabilities and the type of implementation process your company is likely to experience—the fast-track, high priority project with the maximum rate of savings (usually requires best-in-class level performance),or a more cautious, measured approach that makes incremental, modest improvements.

Each approach has its advantages, and neither is wrong¬—as long as you plan accordingly.

Focusing on high impact issues

Focusing on the most critical 5-7 issues that are affecting profits will help you achieve payback within 18-36 months

Once you have decided if you should be setting expectations based on performance success rates of best-in-class companies, typical average results, or more modest incremental improvements, you can move on to choosing the specific performance issues you want to study and build your ROI projections around those areas of improvement.

Although it is likely that several trouble spots can be improved by a new software initiative, most analysts agree that narrowing the focus helps the company stay on task and keeps the implementation team from taking on more than it can effectively project-manage. For most companies, improving 5-7 profit-affecting issues is sufficient to recover the cost of the purchase within 18-36 months.

Of course, start with the issues that are causing the most visible pains—the ones that are causing daily headaches and making important customers unhappy. Also, take advantage of existing data. If your company already collects extensive metrics around a certain issues, it will be relatively easy to compare it to national industry benchmark data that will be helpful in calculating potential improvements.

As you are adding to your list of performance areas to study, make sure to include topics from different functions within the service operation. With a wide circle of people benefitting, there's likely to be more enthusiastic support and more people willing to share in the behind-the-scenes work that need to be accomplished.

When conducting research, keep an open mind to discovering benefits you didn't envision before you started collecting data. It's quite possible to learn through your cost analysis research that a simmering, unnoticed issue is one that has a substantial potential to affect the bottom line.

For example, a slow billing process—a shortcoming that customers will seldom complain about—may offer a substantial roadblock to your cash flow status. Software that will expedite invoicing may pay for itself in a few months. Consequently, be open to expanding your research past the one or two most flagrant issues that seem to be the attention-getters.

Use benchmark data to identify opportunities

Comparing your data to industry benchmark standards will help you identify statistical gaps and focus on major opportunities for improvement. Areas where your performance falls far from Best-in-Class status can be your first targets of improvement. National averages will also help you estimate realistic goals for results, knowing that it is not likely to move from Laggard status to Best-in-Class overnight.

When researching industry benchmark data, remember to consider several factors—not just ones related to income and profit margins. For example, customer retention and customer satisfaction are often just as important as net profitability since they lead to repeat sales and referrals of new customers.

Typical trouble spots to review when you are conducting a needs analysis.

When conducting a needs analysis, give careful consideration to the following:

- **Workforce productivity**—Where is time being wasted? Could more billable tasks be completed if productivity were enhanced?

- **Dual data entry**—Is data being entered into several different disparate systems, rather than being entered once into one common system?

- **Wasted resources**—Are you tying up capital in inventory that isn't needed? Wasting fuel on unnecessary truck dispatches? Over-staffed?

- **Obstacles to resolution rates**—What is the bottleneck to completing service requests in a timely fashion? Parts status? Technician availability? Knowledge management? Connectivity with field technicians? Scheduling/dispatch errors?

- **Customer satisfaction**—Are customers renewing their service contracts or are they displeased with the responsiveness of your service operation? Are contact center personnel knowledgeable? Are field technicians reliable and highly skilled?

- **Accounting and business functions**—Is cash flow affected by delays in billing? Are issues with work orders and expenses slowing invoicing?

- **Tracking materials and expenses**—Are field technicians accurately tracking materials used so that you can bill customers for parts and labor?

- **Warranty management**—Is your warranty claim process inefficient, requiring time consuming data entry and manual tracking of processes? Is it susceptible to errors and allowing savings opportunities to slip by?

- **Strategic planning**—Is lack of business intelligence impeding decision-making?

- **Analytics**—Is lack of a performance management system making it difficult to track and monitor critical numbers? Is it cumbersome to track trends or even identify which of the other issues listed here are most applicable to your situation?

Activity-based accounting principles help evaluate potential gains

Consider direct and indirect costs associated with an activity when analyzing the financial impact of a problem

In order to calculate the return on investment of your software purchase you need to understand the current costs associated with the tasks being affected. This is an incredibly important step in the process and, unfortunately, one that many companies bypass, leaving their entire evaluation process based on speculation and guesses.

Although the principles of activity-based accounting may seem foreign—or even daunting—to the service manager or IT manager who doesn't have accounting experience, the goal is actually simple: To determine the direct expense associated with a particular activity. For example, what does it cost the company to manage the contact center and take customer service requests? If four people are currently required to manage the call volume, the salary/benefits of those four people certainly would be factors, as would any costs associated with the phone system, equipment and outside services. The expense is usually calculated based on a time frame (such as the annual cost of running the contact center), but can also be stated in terms of volume (such as the cost of providing customer service for each account).

All costs contributing to the activity need to be included, whether directly or indirectly associated with the task. There is always room for interpretation and possible debate on how encompassing the assignment of associated costs should be. For example, when calculating the cost of each truck dispatch, you undoubtedly want to factor in the cost of the vehicle, its maintenance and fuel. But, do you stop there? Probably not.

The cost of labor is certainly the largest portion of the overall cost and should be taken into consideration. Other essential resources, such as the scheduling/dispatch manager and contact center personnel, also contribute to the dispatch cost, and some companies may choose to add those indirect costs as well.

Should you also include the cost of inventory of parts carried on the truck? How about the costs associated with the mobile device the field technician carries? There is no one right or wrong answer. Knowledge of your processes and cost accounting system will be necessary in order to determine valid calculations.

Be as specific as possible without getting lost in non-essential details

Activity-based accounting helps determine the cost of your problem so you can project potential savings from correcting the issue

It is possible to become bogged down in the infinite details that can be attributed to a task, taking the project on long, unnecessary detours. Keeping your cost data to the main influences, such as salary/resources/equipment/time will keep your analysis fact-based without becoming cumbersome.

Enlisting help from your accounting team, whether internal personnel or outside consultants, may be helpful in obtaining the data you need in order to calculate activity-based costs. This may especially be true if you are seeking information that may have restricted access, such as salary of peers.

Even if availability of accurate detailed data is limited, you can still make generalized estimates of overhead costs that will help you determine a basic range of financial impact. If you are embarking on this planning project with limited accounting experience, at least start with some rough estimates of costs. You can paint a picture of ROI potential with very broad strokes until you obtain top management support and then fill in details as you get approval to commit more time and resources to conduct thorough research.

Projecting savings from your proposed solution

When you eliminate a problem (and the cost associated with it), the savings contribute to the software's payback

Knowing your costs allows you to project the savings you will receive when you improve the process. Let's continue with the example of the cost per truck dispatch from the previous section. In that cost accounting exercise, it was determined that each dispatch is likely costing your company at least $193.55 in direct costs.

This means wasted dispatches are costly. If a field technician arrives on a job site only to learn he is missing the necessary parts or tools, that wasted trip carried a hefty price tag—not even including the frustration the customer experiences. If wasted dispatches are a frequent occurrence, the savings opportunity may be substantial.

Because you have calculated the cost per dispatch, you can see that each time you eliminate a non-productive dispatch, you will save $193.55.

Your next step is to project how many unnecessary dispatches you think you can eliminate. One per day? One per week? This is where industry benchmark data will be useful so you can compare your current performance to Best-in-Class companies and evaluate your potential improvement.

Remember to be objective, realistic, and to take into consideration the maturity level of your organization. Be conservative. Let's say you determine it is realistic to eliminate two unnecessary dispatches every week, or eight per month.

This means your savings¬—simply by improving your dispatch process—will be $1,548 per month or $18,576 for the year.

Projecting the total cost of the solution

Early planning prevents later frustrations and unexpected shortfalls in funding

As you head into your budget planning phase, you need to have at least a rough estimate of how much investment is going to be required to resolve the issues you identified during your needs analysis. This rough estimate is needed in order to calculate the estimated time it will take to achieve a return on your investment.

Beginning with a realistic estimated cost of the solution is critical to setting expectations of top management and establishing the scope of the project. Is this going to be a major initiative that requires a serious long-term commitment and top-level support or a modest undertaking that department heads can achieve within a fiscal year? Price ranges of solutions—and their implementation—vary drastically depending on how complex the functionality is and how specialized the applications are. The number of users, extent of customization required, and complexity of the product or industry are other issues that can make a major impact on price range.

A few Google searches may be all that a hurried manager takes time to conduct in order to plug a rough estimate into his budget request. Although this is a common tactic, it is one that involves considerable risk. It's quite possible that taking a short cut in research at the early stages of the project will cause a distorted, narrow-sighted perspective that totally derails the likelihood of a successful implementation. For example, forgetting to allow for necessary hardware updates may cause the implementation process to become stalled for months as the implementation team struggles to try to enhance old equipment.

The company that is ill-prepared may actually end up incurring the expense of two implementations—the first one when it tries to accomplish a major undertaking on a shoestring budget, and then a second one when it realizes it needs to approach the project from a more thorough, advanced perspective. Careful planning can prevent such frustrations.

Follow these guidelines to make sure you factor in the necessary secondary costs associated with a software investment:

Hardware. If your current hardware and network infrastructure is outdated, you may need to invest in new servers or additional capacity. Outdated equipment may not be able to provide the necessary speed, memory or security to optimize the benefits of an advanced software solution.

Subscription or license. If your company is small- to mid-sized and has limited internal IT department support, you may want to consider a hosted solution, or Software-as-a-Service (SaaS) model that allows you to pay a monthly subscription fee for a virtual solution. Like renting a house rather than buying one, the SaaS model will offer a lower initial cost, but over time will have a higher total cost of ownership.

Connectivity. Now is also the time to consider if mobile devices may be part of the overall productivity solution for improving your field service operation. A large price range in types of mobile devices, from ruggedized laptops to smart phones, means that adding a mobile solution to your project will vastly impact the scope, cost, and potential ROI. Allow time to research the operating systems available as well as the devices.

Customization. The more specialized your industry is, the more customization you may need to do to a general ERP or business system. Specialized forms, reports, and processes all require programming time. While your IT team may be able to create some reports and forms, , it may be more cost effective to allow room in your budget for your chosen vendor to perform any extensive personalizations.

Implementation. The overall implementation process involves consulting, planning, and working with your project to transition the new system into place. It can take weeks or months, depending on the scope of the project and number of employees affected. The more specialized and well-established your people are in your particular routine, the more time you will need to allow for a team approach to implementation. Involving personnel as a team aids in the adoption and success of a new system.

Training. From the top executives to end users, personnel need to become comfortable with the new system in order for the company to maximize the benefits. Training will help speed the ROI process, helping personnel transition as efficiently as possible. Will training expenses be considered part of the project cost and be factored into your ROI projections? Will internal resources or outside consultants be used as instructors? These questions should be addressed as early in the planning stages as possible, so that you can set realistic goals, expectations, and budgets.

Maintenance/support. When budgeting for a software purchase, it is essential to factor in for an ongoing maintenance agreement to ensure that you have access to product updates and the support/service information you need to get off and running successfully.

Return on investment analysis

21% of best-in-class companies achieve pay back on new business system purchases within 12 months

Once you have conducted all of the research described in the previous sections, you will have all of the data you need to determine if your proposed solution can be justified by the savings.

Will the gains pay for the solution in an acceptable amount of time?

How long will it take for you to recover your investment and begin achieving additional savings? For many companies, recovering their investment in the solution within three years is acceptable. Some companies take a more aggressive approach and aim to recover their investment within 18 months.

If your calculations indicate that it may take longer than three years to begin seeing net savings, you may need to reexamine your goals, your proposed solution, or look further for savings opportunities you can add to the list of benefits.

While success rates vary substantially, some generalizations can be made by looking at reported gains of other companies that have implemented new business systems. The following chart that appeared in Aberdeen Group report "ERP: Is High ROI with LOW TCO Possible," December 2010, lists the results of a survey about performance gains realized after a new software implementation.

Performance gains:

	Best-in-class	Average	Laggard
Reduction in inventory	16%	11%	9%
Reduction in operational costs	19%	12%	7%
Reduction in administrative costs	17%	13%	6%

Source: Aberdeen Group

Reviewing the performance gains on this chart, it is interesting to note that although the laggard firms had more room for improvement and, therefore, could have had higher performance gains than the best-in-class companies, the laggard gains were actually substantially less. The reason is likely that the best-in-class companies had the means and ability to make sure they were fully utilizing the new systems to their maximum potential.

In addition, the best-in-class were, in general, better equipped to track the improvements being made. The author, Cindy Jutrus, reported that best-in-class companies surveyed were 194% more likely (over industry average and laggards) to measure time to value for the initial implementation. In addition, 76% of the non-best-in-class didn't measure the value of the software implementation. "Many companies perceive they have gained significant value... but may have difficulty quantifying or monetizing those benefits," says the report.

According to the Aberdeen Analyst Insight, payback is typically measured in years, with the majority of respondents achieving 100% payback within three years. For 21% of the best-of-class organizations, payback was achieved the first year.

Return on investment analysis

Technology can contribute to reductions in overhead costs and increases the ability to perform more revenue-generating tasks, further speeding ROI

When calculating the potential return on investment, it is important to keep in mind that in addition to the savings potential continues past the break-even point. You will continue to see savings for the lifetime of the software—typically 7-11 years.

In addition to the savings created by performance improvement, your software initiative also has the potential to offer revenue gains.

Streamlining processes will eliminate waste and improve productivity. Personnel will have time to perform more billable tasks. You can extend your service offerings, adding multi-tier service agreements and extended warranties. You can expand geographic reach as well as target new industries or markets. Improved customer satisfaction will lead to increases in repeat sales and contract renewals. You can increase sales volume, without needing to add head-count.

Projected Increase in Revenue Helps APS Justifies Service Life cycle Management Solutions .

When Gary Starks, vice president of Automated Packaging Systems(APS), undertook planning a service software purchase, he actually embarked on a "service transformation journey" that had a major impact on the total company.That journey involved the purchase and implementation of Infor™ Service Management.

APS, headquartered in Streetsboro, Ohio, operates nine plants and has over 30,000 systems in operation worldwide. In addition to manufacturing and selling packaging equipment, APS also sells related consumables and provides service on equipment.

The service operation is considered a vital part of the APS business model, leading to customer loyalty and ensuring ongoing purchases of consumables used in the packaging process.

Meeting customer demands was the underlying focus behind Starks' proposal for upgrading the service management software. Starks knew that advanced technology would help their service team be more responsive to customer expectations—and more efficient in their processes.

In order to get the service transformation project underway and to cost-justify the purchase to the financial team, Starks initiated an extensive research study that looked at the needs of customers and the current operating processes. "We looked at where we wanted to go and how we planned to get there," he said. "We looked at our competitive peers and other industries as well, looking for insights on how we could improve our performance—especially as it would impact customers and the bottom line."

Starks also involved other departments, building what he calls a grass roots demand for a better system. "We discovered that the pains that were affecting the service department were actually affecting other departments as well." For example, the quality of service was an important competitive differentiation for the sales and marketing team. They, therefore, became solid supporters of upgrading software systems in order to increase the ability to meet customer demands, he added.

In addition to cross-departmental support, Starks developed a detailed cost benefit analysis that demonstrated the savings would pay for the cost of the software within two years. "I was able to demonstrate what would happen if we continued down the existing path and what would happen if we chose the path of transforming our service operation," he said.

The next step was to share that vision with other managers. "There definitely were a lot people to convince and there is a certain amount of inertia around business processes...some things people just don't like to change." Once the team saw the proposal with "savings that were measurable and concrete," the plan grew in credibility. "At first it was hard for some team members to understand how software could make a major impact on the bottom line," he said. "But, by demonstrating the changes in efficiencies would affect revenue growth, we were able to prove that savings would start flowing in almost immediately."

It was a long journey, but one that was well worth it, Starks added. "We started with baby steps. But by staying committed and keeping the focus on the customer needs, we were able to develop a plan that truly affected the profitability of the service operation¬and the entire organization."

Get more with Infor Service Management

Infor Service Management is an end-to-end service life cycle solution that helps service-centric companies manage their accounting, contact center, scheduling/dispatch, field service, service history, service contract agreements, warranty agreements, CRM, purchasing and analytics. Optional mobile and web modules are also available.

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