



*A BEIMS Whitepaper
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Justifying a CMMS Purchase

Executive Summary

Justifying a CMMS purchase can be difficult. Despite organisations having millions or billions of dollars worth of physical building assets, systems to maintain these typically receive significantly less funding and attention than ‘front end’ systems such as an organisation’s financial system. Reasons for this may include viewing maintenance as typically a ‘cost’ to the organisation to be minimised rather than as an arm of the organisation that enhances profitability by ensuring assets are fully optimised and maintenance is completed in an efficient and effective manner.

As such, organisations typically reduce spending on new IT systems; however inefficiencies and poor systems should not be tolerated by an organisation because of competition and market forces demanding greater efficiency and effectiveness in all areas. An organisation may be at a serious disadvantage by maintaining the status quo if competitors are taking proactive and aggressive measures to tighten and eliminate inefficiencies. A CMMS delivers critical information on buildings and assets required for excellent decision making. Informed decision making is critical when spending budgets. The consequences therefore of neglecting to implement a CMMS when the need is present can be severe and include:

- Suboptimal resource allocation
- Under utilisation of assets
- Inability to effectively plan or predict future costs
- Poor management of planned maintenance
- Legislative costs associated with non compliance
- Exposure to liability resulting from inadequate work practices
- Overpaying on maintenance costs such as labour and materials; and
- Increased downtime, to name a few.

As the decision to implement a CMMS can have such a significant impact on organisational success, the decision or justification to implement a CMMS should not remain an exercise in cost benefit analysis only. To balance an excessive fixation on costs this paper will explore the benefits a CMMS can deliver and how this can contribute to the long term success and viability of an organisation. This analysis is derived from over 20 years industry experience in developing, implementing and supporting CMMS solutions (BEIMS) for clients in the facility management industry.

The Purpose and Benefits of a CMMS

A computerised maintenance management system (CMMS) is a software package that allows organisations to plan, manage and optimise their maintenance activities. It provides a computerised record of maintenance work that has or hasn't been done. It can record all types of maintenance and job details for ad hoc, planned and capital works related maintenance. Maintenance activities can be scheduled in an efficient manner and asset related information collected and reported on as required.

The information and tools provided by a CMMS can assist in the following areas:

- Optimising asset performance (extend facility and asset life cycles, lower annual funding requirements and decrease facility ownership costs)
- Strategic asset planning & condition monitoring
- Setting up planned maintenance regimes
- Managing compliance & legislative requirements
- Managing ad hoc work requests (manage workflow, allocate resources & reduce costs)
- Statutory and investment decision making
- Access to accurate and detailed reporting
- Improved administration
- Inventory control
- Effective tracking of costs
- Personnel management & staff satisfaction
- Improved contractor management
- Worker safety
- Improved performance of white collar workers
- Better service for end users
- Improving overall company value

In order to accurately assess whether a CMMS is a justified purchase for your organisation, a good understanding of these benefits and how they apply to your organisation is necessary. This will be explored in greater depth below.

Optimising Asset Performance

Buildings and assets are a significant investment for any organisation. It is therefore important to ensure value is being maximised through sound financial and asset planning. Strategic asset planning and carrying out regular planned maintenance can extend facility and asset life cycles, lower annual funding requirements and decrease facility ownership costs.

For an organisation to engage in successful asset planning it must be able to access and manipulate critical financial information relating to its assets. Relevant financial information will enable an organisation to calculate ROI and annual costs of ownership, forecast service life and predict asset lifetime.

A CMMS is built for this purpose and is an excellent tool for recording and tracking all financial details and service history relevant to an asset. Reports can then be generated from the CMMS such as depreciation, acquisition, disposal and replacement forecast reports. When combined with other asset financial information such as purchase costs, depreciation, additions and diminutions, a Whole-of-Life profile can be accurately developed for an asset.

A CMMS will also track historical spend which is critical for lifecycle costing and predicting future spend for that asset. Financial information can then be measured against industry trends and drivers. It can also record building condition information which is useful for establishing a baseline standard against which to measure change and for planning future work.

By keeping a detailed record of its assets, an organisation can more effectively budget, plan and allocate resources.



Administering Asset Management Plans

Once an organisation has a clear financial picture of its assets and has formed a strategic plan, a CMMS can then aid with administering the plan in a timely and efficient manner.

Calendar tools can be used to assist in setting up the asset management plans for a nominated period and then used as a forward, rolling template. Data upload tools can be used to facilitate the process and asset trees and hierarchies help to visualise a company's asset structure by showing relationships in asset assemblies and systems.

In short, a CMMS can prove to be a highly effective tool for managing an organisation's assets, providing an excellent ROI for those who would take advantage of it.

Effectively Assess and Record Current Condition Data

At various times, an organisation may wish to collect condition data on its buildings and assets. Condition assessments are a vital tool for lifecycle costing, the scheduling of maintenance routines and budgetary submissions. Data can assist with planning future works and acts as a record against which to measure change. A CMMS provides an effective framework for recording and reporting on critical information at a given point in time.

A CMMS may also enable condition and/or asset data to be collected via PDA's providing further means for efficient data collection.



Compliance and Protection against Litigation

Effective management of planned maintenance is essential for meeting compliance obligations and providing protection against litigation. A CMMS can be an important tool for ensuring these legislative and statutory requirements are met to the appropriate standards. Tasks required by law can be scheduled in advance with reminders occurring at appropriate times. Specific procedures and requirements can be linked to the tasks ensuring every staff member has the correct information for successful task completion and be aware of possible hazards and compliance requirements. If liability questions arise, a CMMS can help an organisation defend itself by providing clear records that maintenance was performed in accordance with applicable requirements and staff and contractors were adequately informed.

Having a comprehensive system and records in place for ensuring required maintenance is carried out can also prove a valuable negotiating point when renewing insurance contracts.

Planned Maintenance Management

A primary purpose of a CMMS is to assist with setting up planned maintenance schedules to help an organisation meet legislative and statutory requirements as well as administering the organisation's own plan for asset optimisation. The CMMS can be used to set up and record PM tasks and will generate work orders at appropriate times. Some CMMS will provide a pre-researched set of tasks that can be used to help set up your own schedule.



Effective Management of Ad Hoc Work Requests

A CMMS provides an online computerised method of recording, scheduling, delegating and reporting on all facilities and maintenance work. This helps provide an accurate means of costing, analysing and managing a site's work.

It provides all the information required to complete maintenance jobs quickly and easily. The CMMS will provide a record of past repairs, warranties, service contracts, planned maintenance and tradesperson details.

Having an electronic record of faults and requests throughout an organisation provides a centralised point of reference for any related enquiries. Authorised personnel can log into the CMMS and quickly view relevant details to assist with job progress enquiries, add additional job details or to complete the work.

Work can be scheduled in advance of the completion date to ensure important jobs are not overlooked. Reminders can be set up to notify the maintenance team at the appropriate time. Work orders can then be generated and the work completed.

By having a clear picture of ad hoc jobs that have been performed, maintenance staff will be in a position to identify any repetitive trends. Cost benefit analysis can easily be carried out which may indicate replacing parts or equipment may be more cost effective than carrying out frequent repairs or maintenance.

The recorded ad hoc work information is also used to build asset history profiles which assists with decision making regarding asset disposal and acquisition and to identify capital works projects to be carried out.



Improved Administration

A CMMS provides a streamlined approach to administration. It replaces the need to have many unrelated paper based systems and spreadsheets. A CMMS records all insurance, warranty, supplier and service information in one centralised system, enabling all relevant personnel to be able to access the information as needed. Important documents such as insurance contracts or warranty details can be linked directly in the system, ensuring all information can be easily accessed.



Greater Control over Inventory

A CMMS can enable you to keep track of the materials and spare parts used to perform maintenance activities. This includes ordering stock when supplies get low, reserving items for upcoming jobs, and maintaining records of storage locations so personnel can easily locate the supplies they need. Good record keeping ensures expected inventory requirements can be met without buying greater quantities than needed. This assists with both minimising storage space required and assists with cash flow for an organisation.

Effective Tracking of Costs

Tracking costs is important for any organisation or department to ensure an optimal allocation of resources. A CMMS can record and report on labour and material costs, contractor and tradesperson rates and keep track of quotes from different vendors. Maintenance can assess to what extent costs are increasing or decreasing over time and more effectively plan for future jobs. Action can be taken on areas that are running over or under budget.

Total costs can be recorded and can be reported in different ways to show ad-hoc maintenance costs, planned maintenance cost as well as projected costs for budgeting and planned maintenance. This allows you to monitor asset performance and reliability throughout the asset life cycle of procurement, daily usage and disposal.

This information is of benefit to both the financial and maintenance departments. Therefore interfaces can often be built to allow information to be transmitted directly between the CMMS and the organisation's financial system. This facilitates the timely flow of information and ensures records are totally consistent. It also eliminates the double entering of information and allows more accurate and detailed reports to be produced.

Personnel Management

By having a clear picture of upcoming maintenance work, staffing and contractor resources can be allocated more effectively. Similar jobs can be grouped together, saving on labour and material costs. Times taken and expenses incurred in completing jobs can be recorded to ensure staff and contractors are carrying out work productively. Staff contact details and salary information can be recorded along with time saving information such as specific days or times when maintenance repairs must be done or where keys, information or materials are located.

Improved Staff Satisfaction

A CMMS makes the job of the maintenance team easier. This can lead to improved job satisfaction as staff can more effectively manage their workload and the demands of the facility. Having an efficient and effective system in place also allows staff to concentrate on higher value activities. Rather than a continual focus on 'fighting fires' and staying on top of an endless paper trail, the focus shifts towards improving and refining systems and taking informed and purpose driven action based on the reports and data provided by a CMMS. This fosters a greater feeling of control over their workdays and performance and can have significant ramifications for an organisation such as reduced staff turnover and leave days.



Improved Contractor Management

By recording expenses, job completion and time taken details, a CMMS allows maintenance staff to objectively record and report on contractor performance over time. This information can be invaluable when selecting suitable contractors or renewing contracts, saving an organisation thousands and leading to a more optimal allocation of an organisation's resources.

CMMS systems can also provide a web based service for contractors allowing them to access and sign off any work allocated to them via the CMMS. Contractors can be given access to view, print or update the status of jobs in the CMMS via the Internet. This enables contractors to case manage their time, staff and jobs and to provide feedback on work in progress. It also allows for more efficient processing of work and reduces the need for maintenance to follow up outstanding work.

Worker Safety

A CMMS can form an important part of an organisation's safety policy by ensuring OH&S requirements are met. It can help ensure the safety of those at an organisation by allowing maintenance staff to schedule important safety jobs in advance and ensure OH&S requirements are met. It reduces the likelihood that work will be forgotten or overlooked. By improving overall efficiency and resource allocation at an organisation, a CMMS also helps increase the likelihood that the work will occur at the scheduled time.

Optimising Performance of White Collar Workers

A CMMS can also be instrumental in optimising the performance of white collar workers. 'Downtime' is often stressed in manufacturing or plant environments but is equally important with knowledge workers. A CMMS brings greater order and efficiency to a maintenance department by enabling tasks to be completed in a timely, efficient manner. It can be instrumental in setting up a planned maintenance regime which can mean fewer 'reactive' or 'ad hoc' problems arise. This helps ensure white collar workers remain productive and efficient during their workdays and are not excessively hindered by faulty air conditioning or electrical faults. When incidences do occur, a CMMS can help to process and respond to requests quickly and efficiently.

A CMMS can also provide a convenient means for white collar workers to report faults. Many systems allow for requests to be lodged via the web which can save time and hassle of having to phone the maintenance department and potentially not getting through. It also provides an electronic record so the worker can be confident their request has been lodged and received. The requestor can receive automated feedback by the system, saving time from having to following up the maintenance team. These efficiencies can all help to improve the overall productivity of an organisation.

Improved Service to End Users

A CMMS can greatly improve the service provided to end users. An orderly system of receiving and processing incoming work ensures jobs are responded to promptly and don't 'slip through the cracks'. Many systems allow users to place requests or report faults via the web, saving time for both the user and for the maintenance team.

Web based systems can also provide feedback to the user on the status of their request and what actions have been taken. This saves the user from having to follow up maintenance directly as the system can inform the user of job status and actions taken. In turn, this reduces the number of phone calls and emails to maintenance as users can view the request status for themselves online. Further time saving options can be selected such as requesting automated email feedback during critical points of a job progress. End users appreciate the improved communication the CMMS provides regarding the progress of their work requests. An online record as provided by Web Requesting Systems provides a clear record of when the request was made and what was requested. This helps mitigate any misunderstandings or disputes that may occur later on.

Assist with “Greening” an Organisation

Many CMMS offer PDA functionality enabling maintenance to action work orders and collect asset details via wireless technology. This reduces the need to carry 'paper' copies of job requests and also saves time by eliminating the need for maintenance technicians to physically drop off or pick up work orders to the main office.

A number of CMMS also allow asset details to be collected onsite and loaded directly into the CMMS, again eliminating the need to carry 'paper' spreadsheets to collect the information. It also saves time as the information can be uploaded directly into the system rather than having to be physically entered.

Improved Decision Making

A lack of clear records and access to important information can seriously hinder an organisation's ability to make good decisions. The ability to access relevant information is necessary to support statutory and investment decisions for buildings, capital plant and other assets. By providing this information in an easy to use and customisable format, a CMMS can help ensure an organisation makes the best possible strategic decisions based on the information available.



Improving the Overall Value of a Company

If an organisation wishes to sell off all or part of its assets, the ability to demonstrate that the buildings and assets have been properly maintained over a number of years can greatly add to both the asset and organisation's value. In addition, having effective maintenance software, systems and procedures already in place that contribute to the smooth and efficient running of a facility can enhance an organisation's value in the eyes of shareholders or potential buyers.

Conclusion

The decision to implement a CMMS is an important one for any organisation. Implementing a CMMS will show immediate ROI in terms of efficiency gains as well as long term benefits associated with successful asset management.

Focusing only on the costs may cause an organisation to overlook immediate efficiency gains that can be realised to improve an organisation's bottom line. Perhaps more importantly, it can risk an organisation's long term survival and result in diminished competitive advantage and shareholder returns over time. Long term strategic planning is a trait of every successful organisation – a process which can be greatly aided with a CMMS.

A CMMS must always be seen as a long term investment, a core system designed to enhance productivity and effectiveness throughout an organisation. A careful and thorough analysis of not only the costs but also the benefits will result in an organisation making the best possible decision for its long term survival.



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