CMMS implementation guide



The implementation process

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Adopting a CMMS is about more than just learning new software. For a lot of organizations, it represents a full culture shift from a paper-based to digital environment. This shift, coupled with the challenges of adopting any new software mean that a lot of CMMS implementations fail—industry standard failure rates range between 60% and 80%.

Reasons why CMMS implementations fail:

Cost and time overruns

Insufficient training

- Poor end user adoption
- Lack of support from management
- Failure to make the system an everyday tool

Don't become part of that 60-80%. This guide will take you through the whole process of CMMS implementation to help maximize your chance of success. Follow along closely and you'll make fewer mistakes, avoid outside consultancy fees, and cut down on the time you need to implement a CMMS.



Discovery

1. Prepare the business case

Does your organization need a CMMS, or something more in-depth like EAM software? What objectives do you want to achieve with your new software?

Define your goals in terms of cost savings, efficiency gains, scrap reduction, inventory optimization, return on investment, health and safety improvements, standardized work practices, compliance tracking, and environmental objectives. These goals will help determine whether a CMMS is worth implementing, as well as the corresponding budget.

2. Get buy-in from management

Traditionally, maintenance is seen as a cost center in an organization it costs money to hire maintenance technicians and purchase spare parts, but maintenance itself doesn't directly add to profits. This can make it hard to convince management to invest in maintenance.

A CMMS helps you move away from a reactive maintenance strategy (fixing things when they break) towards preventive maintenance (maintaining assets so they perform when needed), making maintenance more of a value center in the organization.

If you've done your homework in Step 1, you should have a good business case to present to management to show them the benefits and cost savings associated with a CMMS.



3. Prepare for change management

Introducing new software can be hard. If an end user has had a bad experience with a CMMS in the past, or experienced a failed implementation, they might be reluctant to adopt new software. Additionally, automation has a bad rap in a lot of circles, and the maintenance team might see a CMMS as an excuse for layoffs.

Deal with these fears by involving the entire team in the implementation process so they see that the CMMS as a positive change for the organization.

Management tips:

- Include all stakeholders when identifying the business benefits and impacts, as this will give them an opportunity to plan ahead.
- Hold coaching sessions, project update meetings, brainstorm sessions and knowledge transfers to keep them informed of progress and give them an opportunity to contribute to the project's success.
- Identify any project factors early in the process and help end users understand that it's better to prevent fires, than be constantly running around putting out fires.



4. Define business requirements

Before you buy anything, define the business requirements for your facility.

Key questions to ask:

- What do you need the CMMS to do to achieve the goals outlined in Step 1?
- How many users will use the system?
- What is their technical proficiency?
- How big is your facility?
- Do you have multiple sites around the world?
- What functionality do you need?

- What modules (such as purchasing) will you need?
- Do you want your technicians to use mobile?
- Are you looking to integrate with other systems?
- Does the CMMS need to match existing processes, or will current processes be optimized with the new CMMS to improve operations?



5. Define your key performance indicators (KPIs) and metrics

In Step 1, you defined your organizational goals. In Step 4, you defined the business requirements to achieve those goals. Now, you need to find your KPIs to measure those goals, and make sure you choose a CMMS that can output those metrics.

Each plant will have its own specific KPI's that can be used to make informed decisions that impact employee safety, productivity, plant efficiency, budgets, and forecasting. However, there are five main maintenance KPI's that will satisfy 90% of organizational requirements:

- Mean time to repair
- PM compliance
- Mean time between failure
- Planned maintenance
 percentage
- Overall equipment effectiveness

Here's an example of what an organizational goal, business requirement, and KPI might look like:

Organizational goal:	Improve equipment reliability
Business requirement:	Ensure that the CMMS can do both time- and condition- based maintenance
KPI or metric:	Mean time between fail (MTBI)
Other resources:	> Advanced CMMS metrics ebook



6. Create your project schedule

Define your project timeline and milestones. The following diagram outlines how implementation is broken down and how the tasks will be performed for a typical four-week implementation.





7. Choose your CMMS

There's a lot of software out there. Creating a list of requirements and scoring each item by importance will let you quickly and easily compare CMMS solutions side by side, and help you make the right decision the first time.

Key factors when considering a CMMS:

Features

Modern CMMS applications come with a lot of features, from work orders to report builders. Score the CMMS on its ability to meet your feature requirements as outlined in Step 5 above.

Add-on features

Many vendors may be able to provide a solution out of the box, but some might need additional development to meet your needs. An "off-the-shelf" solution is generally more cost effective and easier to upgrade and support.

Complexity

As the old saying goes, you don't use a sledgehammer to crack a nut. CMMS software can range in complexity from simple work order applications to intricate EAM systems with ERP integration. If it's too complex for your needs, nobody will use it. Score the software on its accessibility and ease of use.

Training

How easy will it be to get your team trained on the CMMS? Investigate all the training options. Many vendors offer onsite and remote training but some offer in-app tutorials too. Know what kinds of training are available to you in case you have problems getting set up.



7. Choose your CMMS (cont.)

Vendor profile

Investigate whether the vendor is knowledgeable about your specific industry or regulatory requirements. Do they have customers in similar industries? Do they have a vision for the future of their CMMS? This will help determine if the vendor will be around in the next few years.

Support

Check out the types of tech support that the vendor offers such as phone, help tickets, FAQ, or videos. What is the tech support response time? How much effort will it require to maintain the system going forward? In addition, be sure support is available in your language and accessible during your business hours.

Integration

Can the CMMS successfully integrate with existing business process workflows, or implement new workflows? Can you integrate the CMMS with other systems and software applications if needed? You may not need this functionality now but is this something you might need in the future?

Technology

Do you go with on-premises or cloud hosted CMMS software? On-premises software can be a handful to manage—you need to provide the IT infrastructure to run the application, configure the network, and install upgrades and security patches. It's a lot more hands-on and requires a good amount of IT expertise. Luckily, cloud-based CMMS application—which are hosted and managed by the vendor are becoming much more popular thanks to their lower total cost of ownership, unlimited scalability, and easy, automatic product upgrades.

Total cost of ownership (TCO)

You need to consider the initial price of the software, as well as factors like network setup and configuration, security, license renewals, future upgrades, and scalability expenses when calculating the overall cost.



8. CMMS selection

When you have scored all your vendors using your selection matrix, simply select the vendor with the highest score and move to the next stage of the implementation process.

Check out our e-book, Choosing a CMMS: A short guide for some tips on how to select modern software that's a good fit for your business.

Other resources:

> CMMS feature scoring calculator



9. Select your project team and determine roles and responsibilities

Your organization needs to decide who will own the CMMS implementation. The size of the team will vary depending on the scope of the project.

Key questions to ask:

- Will your organization complete this project in-house, or outsource?
- How much CMMS knowledge or software implementation experience do you have in-house?
- How much vendor involvement will you need?

Selecting a dedicated team of maintenance and IT professionals will help ensure success. So who should be on your team?

Project manager:

The project manager sets the project expectations and best practices, and guides the teams through all implementation activities.

Training director:

The training director is responsible for all CMMS training at your site, and should be a maintenance professional with strong IT skills and extensive industry experience. Alternatively, the CMMS vendor can also provide onsite or remote training to your team.

CMMS implemenation specialist:

The implementation specialist reports to the project manager and is responsible for the day-to-day rollout of the CMMS.

These responsibilities include:

- Data cleansing
- Data gathering
- CMMS setup and configuration testing
- Monitoring
- Customizations and security configuration
- Coaching and on-the-job training for users before and after the go-live date



Data migration

1. Data gathering

Gathering data is a big component of your implementation plan and a key factor in its success or failure. In fact, missing data is one of the biggest reasons CMMS implementations fail.

The project team needs to be diligent when gathering all assetrelated information, including equipment types, preventive maintenance actions, trigger frequencies, standardized procedures, spare parts information, and supplier details. Plan what is needed ahead of time to meet business requirements so nothing is missed.



2. Data entry: Tables, codes, and system control info

Uploading and configuring the data in your new CMMS doesn't have to be a huge task. If you have data from a legacy system or Excel spreadsheets, that history can be transferred to the new CMMS. Importing parts lists, equipment lists and standardized tasks lists from Excel can knock days off the implementation schedule. The time taken to complete this step in the CMMS implementation project varies depending on the quantity of data and the size of the facility.



3. Data cleansing (from existing programs or Excel)

Expect to find garbage data from a prior system or legacy application during your CMMS implementation. While existing data can be imported directly into most CMMS applications, some data manipulation is probably necessary before the import. Assume prior data is of poor quality and will require data scrubbing before it can be uploaded to the new system. Make sure to account for this time in the project tracker.





Training and go-live

1. Train end users

Training is your number one key to success when it comes to getting a CMMS up and running. It helps users and admin understand the features and full capabilities of the software so they can use the system effectively and efficiently.

2. Review user responsibilities

Review the role of each user in maintaining the CMMS, preserving the integrity of the data, and configuring the system. At this point, the CMMS specialist or project manager should outline how to manage the CMMS on a daily basis in order to maintain a healthy system in the long run.

3. User acceptance testing

This is basically a fancy way of saying that users need to check that the CMMS works how it's supposed to work. This includes checking things like security, menus, and permissions for each user group.

4. Go live

When all previous steps are complete, the CMMS can go live. All end users are expected to work in the new CMMS going forward.

5. System monitoring and on-the-job training

After going live, the software implementation specialist should shadow end users to verify the system is performing as expected. Are the right notifications going to the right people? Are scheduled maintenance items triggering? This also gives the implementation specialist time to spend with each end users providing training as they perform their work.



Project close

1. Post-implementation verification

The implementation is complete when all the project tasks have been signed off on. Expect some changes to the CMMS configuration as the software evolves over time, and users become more comfortable with the application.

2. Project assessment

Your post-project review assesses the success of the CMMS at your site. This should include a comprehensive report and executive summary of findings that are presented to the key stakeholders at the end of the project.

In the review the manager should do the following:

- Measure how closely the project meets the business requirements
- Identify what worked well and what still needs improvement
- Formulate and share lessons learned and best practices
- Advise on any potential issues or risks going forward



Review, improve, and refine

Implementation isn't the end goal; it's the first step.

A CMMS is just another tool, and its success depends on how you use it. To get the full benefits of the software—things like better planning and efficiency, increasing safety awareness, and reduced costs you have to monitor current CMMS use and take time to find ways to improve how your organization uses the software. Get feedback from users, run performance reports, monitor KPIs, and implement improvements where possible.



One more thing...

A CMMS isn't a magic solution that will turn your maintenance department into a well-oiled machine. But it is an inexpensive and useful tool that can help drive down maintenance costs. Over time, your CMMS will become a database of maintenance-related information that can be used to outline best practices, identify workflow improvements, pinpoint cost savings, and eliminate waste.

It's not a quick fix, but good software can be a critical cog in your maintenance and reliability strategy that can seriously improve plant performance if used—and implemented—correctly.

Other resources:

- > 22 Negotiation secrets: Get the best price on parts and supplies
- > Advanced CMMS Metrics
- > Get more from your CMMS with nested PMs

