

# CMMS Lingo: A Brief History

*Understand the “Cloud” of Tech Terms and Simplify Your Search for a Software Solution*



**We Make Software that Works for Working People.™**

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At MPulse, we believe that maintenance software should make your life easier and your organization more productive. We provide equipment and facilities maintenance solutions with scheduling, tracking, and reporting tools you can depend on.

From small maintenance shops in public schools and commercial laundries to large maintenance departments in global enterprises like IKEA and Caterpillar, we've become a trusted maintenance management partner. MPulse Maintenance Software gives you the control you need to get things done and the accuracy you demand to report your results confidently.

For over 16 years, MPulse has been an industry leader in maintenance management software. Founded in 1995 as a division of SpecTech, Inc., MPulse is led by a group of veteran high tech and software experts with deep experience in the maintenance world.

With our easy-to-use EAM/CMMS software, MPulse customers reduce maintenance expenses, minimize downtime, extend equipment life, and boost productivity throughout their organizations. With MPulse, your maintenance department truly becomes a profit center.

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# CMMS Lingo: A Brief History

*Understand the “Cloud” of Tech Terms and Simplify Your Search for a Software Solution*

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# Lots of New Tech Terms

If you're searching for a Computerized Maintenance Management System (CMMS), Enterprise Asset Management (EAM) solutions, or any business software, you've probably already recognized that the marketplace is flooded with technology lingo. The good news? The large number of new tech terms signals a host of fresh options for how you can purchase, install, and use software. But to make a sound purchasing decision for your organization, you've got a little homework to do to familiarize yourself with existing and new terminology, and

to understand all the latest technology options.

In this article, we'll provide a history lesson on well-established technology terms and concepts. We'll also give you a primer on some more recent technology lingo you need to understand when researching CMMS/EAM solutions and vendors. Master these and you'll get much more out of your product research and discussions with vendors, and fully grasp what your options are in purchasing a CMMS/EAM solution.

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For a glossary of key terms and definitions mentioned in this article, refer to Appendix A: Terms & Definitions. These terms are in **boldface** throughout the article.



# A Long Way in a Short Time

Business software has come a long way in the past 15 years. While business applications have been available much longer to corporate giants, powerful and versatile software options for smaller firms really only began to emerge in the 1990s. For example, project management software was so highly valued in the '80s it often sold for as much as \$500,000 per copy. Thankfully, software prices are now about 1/1000 what they were back then. Performance, features, and functions have *increased* by a similar magnitude. Let's take a look at how things progressed.

## **Standalone Applications**

From the mid 90s through the early 2000s, browsers like Internet Explorer and Mozilla Firefox were still in their infancy, and new to most of us. The

business applications many companies used at the time were installed entirely on desktop computers, where all of the information processing occurred. We opened these **Standalone Applications**<sup>1</sup> from our "Start" menu or a desktop shortcut, and no network or Internet connection was necessary for them to function. In a business environment, they typically needed to be installed and updated by an IT person. Full version upgrades could take an hour or more of dedicated IT department time. Data input was mostly manual, and sharing information with other people or systems usually involved a floppy disk or printed reports.

## **Client-Server Applications**

As networking technologies improved,

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<sup>1</sup> Application capable of operating without other computers, hardware, networks, etc.

<sup>2</sup> A distributed computing architecture, where an application's software is split between the user's computer, the "client," and one or more "server" computers.

standalone applications quickly gave way to **Client-Server Applications**<sup>2</sup>. With client-server technology, you still needed to install and update an application on each user's desktop computer—a hassle for IT departments—but you could offload much of the information processing to a server computer. With centralized processing and data storage, client-server architecture offered significant advantages over standalone applications. It was much easier to collect and share data, and (if network

performance was good) it provided performance at or near standalone levels. Servers managed by professional IT staffs also meant better data management and fewer data-loss "catastrophes." Client-server solutions still fell short, though, when it came to application installation and maintenance. Managing and optimizing company-owned servers AND each and every desktop "client" meant hours and hours of IT department time and heavy investments in staffing.





**Web-based or browser-based?  
What's the difference?**

“Web-based” and “browser-based” actually mean the same thing. They refer to applications that use a web browser, like Microsoft Internet Explorer, as their client, the portion of the software that displays on your screen. You don't always need access to the Internet to use them—you can always host a web-based application locally.

**Web-Based (aka Browser-Based)**

By 2004-2005, the Internet Explorer and Firefox web browsers had improved considerably over earlier versions. Savvy technology companies recognized they were no longer just toys for “surfers” to visit websites. They were fully capable of supporting serious business applications. These **Web-Based or Browser-Based**<sup>3</sup> applications could provide all the fields, forms, reports, views, and controls users expected from standalone or client-server software, with one key difference. No specialized client software needed to be installed on each user's desktop

machine. Users just opened a browser and went to the application home page or login page.

Early browser-based applications drew criticism for slow performance or limited feature sets. The lackluster performance was more often the fault of a slow network connection than the application itself. As access to robust network bandwidth improved for most organizations, performance complaints rapidly declined. Application vendors quickly stepped up their game to meet rising

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<sup>3</sup> A software architecture that uses a standard web browser as its desktop client, rather than specifically designed and installed software.



**To simplify the concepts, think in terms of two questions.**

1. Deployment Options: Where is the software installed and managed?
2. Purchase Options: How do I pay for the software? Rent vs. buy.

Answering these questions makes it easier to find what you're looking for, and provides a context for the technical lingo.

expectations by providing the same full feature sets in their new web-based versions. By 2007-2008, most software companies who'd made the leap to web-based applications were fielding versions that offered more features, faster performance, more flexibility, and better usability than previous client-server versions.

Today, web-based applications are the standard. Browser developers Microsoft, Mozilla, and new entrants like Google (with Chrome) know this, and spend millions to field high-performance browsers that support demanding business applications. Microsoft, through the Microsoft Partner Program, spends millions more to train and support its network of Independent Software Vendors on the best ways to build and deploy Microsoft browser-based solutions.

### **Locally Hosted and Locally Installed**

The advent of web-based software relieved IT departments of the gargantuan task of installing and maintaining client software on hundreds—sometimes thousands—of desktop computers. It also led to tremendous efficiency gains and saved companies countless dollars. In many organizations, IT teams now needed only to maintain standard, basic configurations on their desktop machines and keep network connections up and

running. They were able to install, configure, update, upgrade, and maintain key business applications on one or two centralized servers. This **Locally Hosted** or **Locally Installed**<sup>4</sup> configuration requires a professional IT department, but far less time and expense than client-server installations. More and more, however, companies are deciding that even this is too much. Many—perhaps most—now turn to their software vendors or outside hosting companies to host some or all of their applications.

### **Application Hosting and “The Cloud”**

#### *The Hype and the Truth*

No doubt you've heard mention of **The Cloud**<sup>5</sup>. It seems every vendor in the marketplace is touting “software in the cloud” or “cloud services.” But what does that really mean? Given the recent marketing hype, you'd think this was a new phenomenon. In reality, “cloud-based software” is just another term for a professionally hosted and managed solution, sometimes called **Application Hosting**<sup>5</sup>.

Application hosting companies are firms that professionally manage software on servers in a purpose-built hosting facility. With the abundance of high-speed Internet access, the need to host applications locally has disappeared for all but the most remotely located businesses. Fast, reliable bandwidth has

<sup>4</sup>When a web-based application is installed and maintained on a company's own servers. Local hosting is typically provided by its own IT department.

<sup>5</sup>When a web-based application is installed and maintained by a professional hosting service on a purpose-built hosting environment for other companies.

made it possible for businesses of all sizes to offload the task of hosting and managing even their most critical business applications.

### ***Performance and Reliability***

Professional hosting provides a number of benefits. Chief among those benefits, it's usually provided by companies *that do this as their core business*. While your company's primary business may be manufacturing products or running facilities, theirs is configuring servers, software, and network connections to run at optimum levels—and to keep it all running. If you choose a reputable hosting provider, you'll likely get guarantees of uptime in excess of 99%. They'll also be sure that your software always has the latest updates and runs on the most

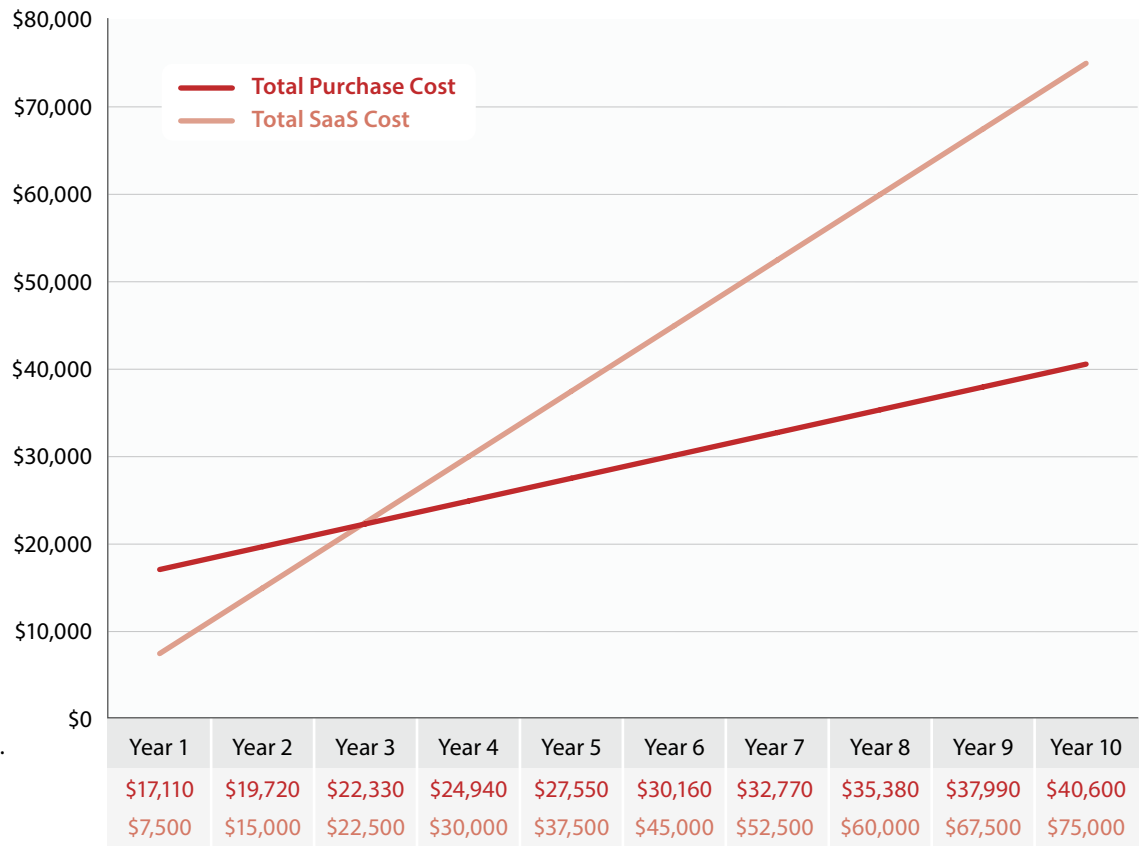
current, high-performance hardware.

### ***Financial Benefits***

In addition to the performance and reliability professional hosting can deliver, it also can provide cost savings. You won't need to purchase and dedicate company servers to running your software, and you won't need as many IT managers and technicians to install, configure, update, and maintain it. Additionally, most hosting companies can have your software up and running in a matter of hours, compared with days or weeks for a local install. And with contemporary security technologies, you can feel confident your data is protected during transmission between your company and your hosting provider.



### SaaS vs. Purchase



#### Rent vs. Buy

SaaS vs. Purchase chart showing cost at 1–10 years.

### So What About SaaS?

Like “cloud computing,” the term **“Software as a Service” (SaaS)**<sup>6</sup> has been all over the media in the past few years. I often get asked, “Isn’t SaaS just hosted software? How is it different?” Well, the answer is simpler than you might think. SaaS is actually just a *purchase option*, not a means of delivery. When you opt for SaaS software, you’re choosing to *rent* the software rather than buy it.

When you purchase software (often called the “licensed model” of software acquisition), you pay an up-front amount and become the outright owner of a

license to use that software indefinitely. You may still pay an annual maintenance fee for support, software updates, and other benefits, but the software is yours to use forever.

With SaaS, you pay for the right to use the software for a specified period of time. For consumer applications, this might be a month-to-month rental period. For business applications, it’s typically a year or more. SaaS pricing is usually based on per-user or per-site increments, and usually includes support and updates, so there are no additional maintenance fees.

<sup>6</sup> Software that is leased for a given period of time, rather than purchased outright. Typically, software is provided via a hosted service, but may be locally installed with an expiring license.

So what are the most compelling reasons to rent your software rather than buy it?

- **It can be much more affordable—in the short term.** If you have a limited budget, you can get more bang for your buck today. Keep in mind, though, that you'll continue to pay, *year after year*. Typically, purchasing software becomes the less expensive option at about 30 to 36 months.
- **It might allow you to pay for software without going through a formal procurement process.** If your company divides departmental funding into operational expenses ("OPEX") and capital expenses ("CAPEX") you may be able to spend

OPEX money on your software without making a CAPEX request.

- **You won't be "locked in" to a single vendor or solution.** With SaaS, you can change vendors at any time without abandoning a large investment. Keep in mind, though, that there are always switching costs. You'll need to retrain personnel whenever you implement a new system. Renting a solution for a year, though, may provide a good trial period for a new solution, if you're not 100% convinced it's right for you. You can always purchase later if the vendor offers a purchase option.





## *Get the Right Solution for You*

Clearly, software technology has come a long way. There are many options when you're looking for CMMS/EAM software and many capable vendors in the marketplace. The main thing to keep in mind as you continue your search for the right solution is to find the one that's best for you. When you speak with sales reps, be clear with them about your expectations and requirements. Good vendors won't pressure you into a solution that's not a fit for your organization. The solution that provides the right level of features, performance, security, and control is out there, and it's the vendor's responsibility to ensure you're able to make an informed decision that'll meet all your needs.

## Appendix: A Glossary of Tech Lingo

Term	Definition	Pros	Cons/Limitations
<b>Standalone Application</b>	Application capable of operating without other computers, hardware, networks, etc.	No network connection required.	Requires IT support to install and maintain. <ul style="list-style-type: none"> <li>• Lengthy upgrade process.</li> <li>• Difficult to import or share data.</li> </ul>
<b>Client-Server Application</b>	A distributed computing architecture, where an application's software is split between the user's computer, the "client," and one or more "server" computers.	Requires less desktop processing power. <ul style="list-style-type: none"> <li>• Easier to collect and share data.</li> <li>• Fewer data loss incidents.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires heavy IT support for both desktop and server computers to install and maintain.</li> </ul>
<b>Web-based (aka Browser-based) Application</b>	A software architecture that uses a standard web browser as its desktop client, rather than specifically designed and installed software.	Lower demands on IT departments. <ul style="list-style-type: none"> <li>• No need to install special software on all desktop machines.</li> <li>• Endorsed and certified by multi-billion-dollar browser developers like Microsoft.</li> </ul>	Requires a network connection.
<b>Locally Hosted or Locally Installed</b>	When a web-based application is installed and maintained on a company's own servers. Local hosting is typically provided by its own IT department.	Provides maximum control of security and other settings. <ul style="list-style-type: none"> <li>• Does not necessarily require a consistent Internet connection.</li> </ul>	Company must purchase, install, configure, and maintain servers dedicated to the application. <ul style="list-style-type: none"> <li>• Creates demands on company IT resources.</li> </ul>
<b>Application Hosting or Software in the Cloud</b>	When a web-based application is installed and maintained by a professional hosting service on a purpose-built hosting environment for other companies.	Servers and software are installed and maintained by a company that does this as its core business. <ul style="list-style-type: none"> <li>• No computer hardware to buy, install, or maintain.</li> <li>• Very limited demand on IT resources.</li> <li>• Very high performance, availability, and reliability.</li> <li>• Data is backed up regularly and often in numerous locations.</li> </ul>	<ul style="list-style-type: none"> <li>• Some minor limitations on detailed settings and configuration necessary for some local networks.</li> <li>• Less granular control over server settings.</li> </ul>
<b>Software as a Service (SaaS)</b>	Software that is leased for a given period of time, rather than purchased outright. Typically, software is provided via a hosted service, but may be locally installed with an expiring license.	May be less expensive over a short timeline, typically 2-3 years. <ul style="list-style-type: none"> <li>• You may be able to make a purchase without going through a formal procurement.</li> <li>• Flexibility. You're not locked in to a vendor.</li> </ul>	You never own the software outright. <ul style="list-style-type: none"> <li>• It can become expensive over longer time periods.</li> </ul>



#### About the Author

Jason joined MPulse in early 2011. No stranger to the industrial and facilities world, Jason worked as an industrial electrician during high school and college at factories in High Point, NC.

Jason's eclectic career includes stints as a US Army officer and a rock music photojournalist—but his core focus has always been high tech sales, marketing, and product development. He has provided consulting and executive management for many industry leaders, including Microsoft, Seagate, Avaya, NTT Verio, and NetApp. Advising the US government, Jason has led key technology product development projects for the US Air Force, the US Navy, and the Department of Homeland Security.

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