



**WHITE PAPER**  
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## **Choosing the Right Computer Solution for Your EMS Service: Client/Server (C/S) vs. Software as a Service (SaaS)**

Managing a fast-paced EMS service comes with many challenges. One of the most important is managing and storing crucial medical, patient care, and billing data. In recent years, two main computer solutions have emerged as the predominant models: Client/Server (C/S) and Software as a Service (SaaS). Before purchasing a new EMS billing and/or ePCR software solution, it is vital to understand which computer solution best fits the EMS service. This white paper will examine both C/S and SaaS, assessing the benefits and challenges associated with each model so that EMS services can make the right decision regarding their hardware and software needs.

### **What is C/S?**

*C/S is a traditional network in which all software and data are stored onsite.*

Client/Server (C/S), also known as onsite or in-house software, is a traditional networking method in which software is installed onsite and works with an organization's local network or desktop. Data is stored on the server at the client's office, and is only accessible offsite using a remote desktop connection, such as a virtual private network (VPN), that could provide remote access to the organization's secure network. C/S customers usually acquire a perpetual license that includes a start-up cost and annual support fee.



### What is SaaS?

*SaaS is a subscription-based service accessed via the internet.*

Software as a Service (SaaS), also known as web-based or web-hosted software, is a software delivery model that has gained popularity in recent years. With SaaS, the software vendor hosts billing and/or ePCR software for the client, and provides users with access to the software through their web browsers (like 'Internet Explorer' from Microsoft). Data is stored at the software vendor's site and is accessed via the internet. SaaS customers typically subscribe (monthly or annually) for this service.

**Table 1: Differences between Client/Server & SaaS**

	Client/Server	SaaS
<b>Pricing Model</b>	Typically a perpetual license purchased up-front with an annual support fee.	Pay-as-you-go subscription fees, usually charged monthly or annually.
<b>Deployment</b>	Software and data reside on a server and/or desktop that is located and managed in the EMS provider's office.	Software and data reside on a central server, at the software vendor's data center.
<b>User Interface</b>	Software is installed and managed on each user's PC or local network server.	Users access the system through a web browser. Software does not need installed on the PC (unless you need remotes in areas without internet access).
<b>IT Maintenance</b>	All Server and PC software and hardware are maintained by the EMS office staff or an IT consultant.	Server maintained 100% by the software vendor. EMS provider maintains PC hardware.
<b>Accessibility</b>	Accessed on-site, or a remote site via a special VPN connection.	From anywhere with Internet access. Must have dependable Internet.



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## The Benefits of C/S

As a traditional networking technology, C/S has proven a reliable resource for EMS services. The following are key benefits to using C/S:

- **Don't need to rely on an internet connection** If the internet is down, the service's software is still running in the office.
- **One time cost for software with yearly support renewals** With the right budget and staff capabilities, the total cost of ownership may be lower over the long run.
- **EMS Service has complete control of the technical environment** This allows the customer to schedule deployment, updates, and maintenance activity when it fits them best.

## The Benefits of SaaS

SaaS has become an increasingly popular tool for EMS providers. The many SaaS benefits include:

- **Little to no commitment** Since SaaS is available on a subscription basis, customers can choose to renew or cancel their terms without major repercussions.
- **No heavy start-up costs** The software vendor bears the costs of the server hardware, software, maintenance, security, disaster recovery and monitoring.



- **Quick deployment and accessibility** Users can begin using the application almost immediately since there is no software or hardware to install and there could be reduced risk of failed deployment.
- **IT Budget and resources are freed up** With less upfront money required on the software and staff, money can be invested in other EMS projects.
- **Automatic updates as new releases are made** Instead of having to install new updates onsite, software updates are made remotely and are readily implemented by the vendor.
- **Allows EMS professionals to focus more on core business and not IT infrastructure**

### The Challenges of C/S

Consider the following challenges when reviewing C/S as a networking option:

- **More expensive up front (server hardware, server software, setup, performance tuning, etc.)**
- **Time intensive** Installation is handled internally and could take longer to implement.
- **Requires team of dedicated resources** EMS staff or IT specialist must manage their own upgrades and ongoing maintenance.



## The Challenges of SaaS

The following challenges unique to SaaS are important to remember:

- **Loss of control** Updates and maintenance are scheduled by the vendor. Some customers want the ability to manage these tasks on their own timeline.
- **Requires a dependable internet connection** If the internet goes down, so does the software.
- **Dependability of SaaS vendor** If the vendor is unreliable and cannot ensure that service will be up 99% of the time, software operability will suffer.

## What to Look For in an EMS Software Provider

When seeking an EMS software provider for C/S or SaaS installation, be sure to consider the following critical requirements:

- **Full-service solution** Vendors that provide full-service solutions—implementing both C/S and SaaS networks—allow for flexibility in use and the broadest range of price and product options.
- **EMS expertise** Software vendors with extensive experience in the EMS field are best equipped to answer questions and anticipate problems unique to EMS billers and crews.
- **Reliable track record** Vendors with a proven history of delivering high-quality software and services will best serve their EMS customers.

*Choose a vendor with flexible software solutions, EMS expertise, and a proven track record of success.*



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## The AIM System Advantage

The AIM System from RAM Software is uniquely positioned to deliver Client/Server or SaaS installations for an EMS service's billing or ePCR needs. With over twenty years of successful service in the EMS industry and a dedicated customer support and training staff with extensive EMS backgrounds and information technology experience, RAM tailors their full suite of products and services to fit the unique needs of each EMS provider.

To learn more about how the AIM System from RAM Software Systems can provide ePCR/Billing in either a C/S or SaaS solution, visit [www.ram-software.com](http://www.ram-software.com) or call 800.726.4690.

