



**AN IT CONSULTANT'S PERSPECTIVE:
DSOs Moving to Cloud-Based
Practice Management Solutions**

 **planet**
DDS

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Introduction

As an IT consultant for dental, medical, and business organizations, the CentriServe IT team has a deep understanding of proper IT foundations that lay the groundwork for scalable infrastructure. We asked [Jared Galovich](#), the owner of [CentriServe](#) about his background and his unique perspective.



Even though the core of my business involves serving clients as a fully managed service provider, I often recommend a cloud-based practice management system to the dentists with whom I collaborate. There are so many distinct advantages of these solutions compared to server-based systems, many of which might surprise you. I know change can be unsettling but investing in the most beneficial system now will save you a lot of trouble trying to keep up with competitors down the road.

I've spent nearly 25 years of my career in IT services and created my company, CentriServe¹, about ten years ago. In addition to designing IT for dental service organizations (DSOs) and group practices around the United States, my team and I provide IT management support to these businesses along with medical practices.

Our goal is to ensure that the dentists and other medical professionals we serve have the best IT solution to fit their business needs. Making money is essential for us to stay in business, of course, but we don't give our clients recommendations that don't provide them with the right IT solution. Candidly, recommending an antiquated solution like a server-based system is often more profitable for us, but we are committed to making recommendations that will help our clients achieve their long-term goals which is why I often recommend cloud-based practice management solutions for my dental clients.

We are an IT company that really focuses on the dental practice and helping their business grow. Our goal is that they have happy patients, a healthy practice, and that their owners and employees are happy. And Denticon helps us do that; the whole Planet DDS family is a complete system. Denticon makes it a lot easier for DSOs, allowing them to manipulate data and get reports in real time. And that makes the dental practices we serve are happier, more efficient, and more profitable because they know their numbers, the clinical side of things, analytics, it all in there under one system.

JARED GALOVICH | Owner and Founder of CentriServe IT

1.

The Growth of Cloud Computing

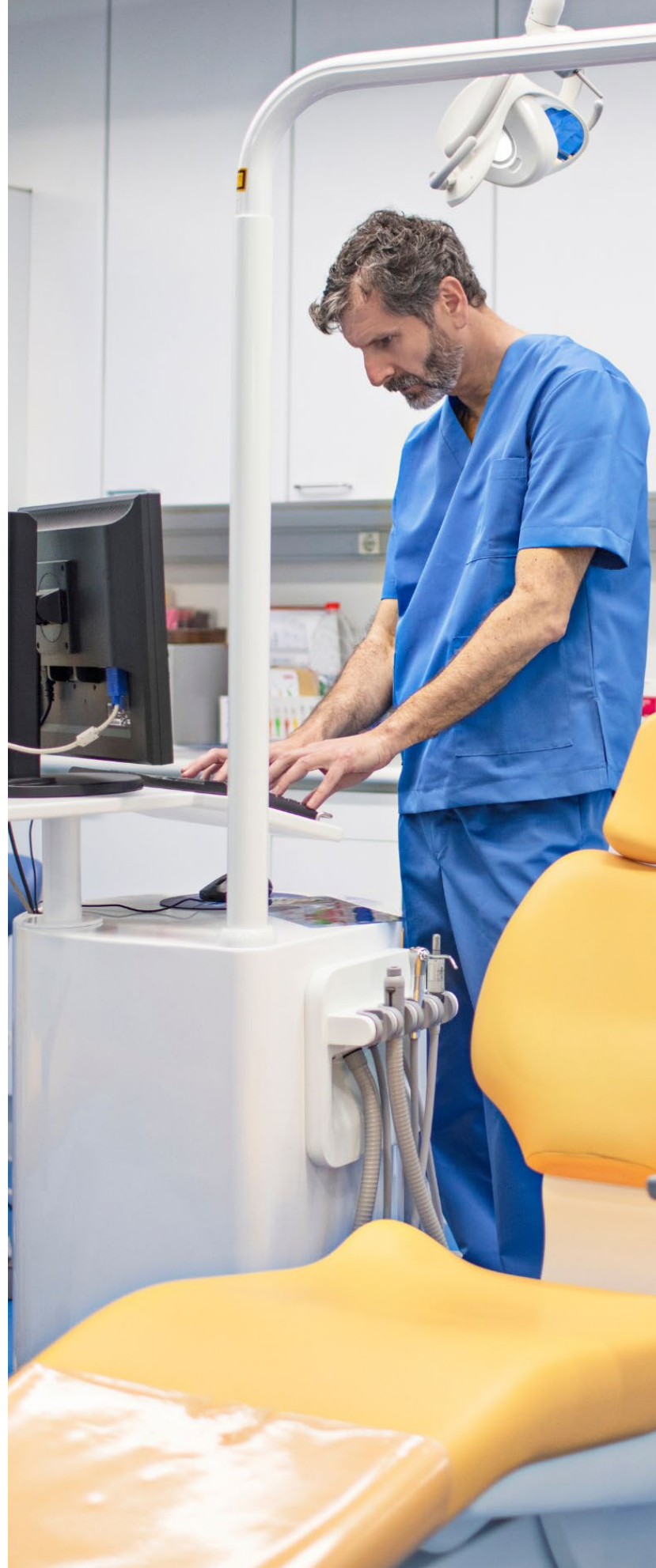
Cloud computing has been part of the technology landscape for years, although its inception varies depending on the source. Some believe it was invented by Joseph Carl Robnett Licklider in the 1960s with his work on the Advanced Research Projects Agency Network (ARPANET). Others insist the term was first coined in 1996 within a Compaq internal document. A third faction has the first use of “cloud computing” in its modern context occurring in 2006 when then Google CEO Eric Schmidt introduced the term to an industry conference.

Whatever the year and whoever the inventor, cloud computing has certainly experienced a rapid rate of growth. The global cloud computing market size² is estimated to secure a value of \$482 billion by the end of 2022 and reach \$1,554 billion by 2030. That’s because almost 95 percent of enterprises³ use the cloud.



Perhaps the industry slowest to adopt cloud computing is healthcare. However, that's changing rapidly. Approximately 83 percent of healthcare organizations⁴ now utilize the cloud, and the global healthcare cloud market⁵ is projected to reach \$89.4 billion by 2027. Even among healthcare, dentistry is one of the slowest to adopt cloud solutions. Ironically, DSOs have much to gain through implementing cloud solutions in their organizations. We are increasingly seeing more DSOs in particular, making the move for various reasons, including centralization, standardization, anytime access, among other cloud benefits.

A comprehensive article by McKinsey & Company notes⁶ that cloud capabilities have the potential to generate value of up to \$170 billion in 2030 for healthcare companies. How? By enabling them to more effectively innovate, digitize and realize their strategic objectives.



2.

The Cost Misconception

Despite the overwhelming momentum and value of cloud solutions enjoyed by the broader market, it's estimated that only about 10-15 percent of dental practices in the United States have adopted a cloud-based practice management solution. What obstacles exist among dental leaders to invest in a technology with so many proven benefits? There are pros and cons to both cloud- and server-based practice management systems, but many of the negatives presented often are myths.

For example, many dental practice leaders cite cost as a key reason for sticking with a server-based solution. What many dental leaders don't realize is that the costs involved with moving to cloud computing are usually lower than implementing server-based technologies. In fact, migrating to the cloud cuts costs for a dental practice in a single location or across larger organizations.

How is this possible? Cloud-based dental practice management systems give providers access to improved computing resources at a lower cost through better resource utilization. Costs associated with on-premise, server-based solutions typically are separate and include setup and consulting fees, an image file server, security software with manual updates and any additional support. Conversely security software and support, including automatic updates, are typically included with cloud-based systems.



The Cost Misconception

When managing a multi-office environment...

The cost of on-premise solutions can be 15-20% higher due to the following:

- Greater complexity of the network environment with more hardware and software required
- Adherence to HIPAA compliance in a more complex environment
- High Availability and Disaster Recovery for centralized networking and private cloud hosting




As an IT managed service provider, I actually lose revenue when dental practices decide on a cloud-based practice management solution. This is primarily due to the extra service and support contracts that are needed for server-based solutions. When practices think they're saving so much money with a server-based system, they're forgetting that there are pieces that need to be added to make it a complete platform. From remote application and deal licenses to variation margin posting and other components in between, **there are a so many different things practices have to add to make a server-based solution work.**


3.

Cloud vs. Server-based Dental Practice Management Solutions: A Comparison

Before diving into a comparison between these two solutions, let's clearly define each one. With server-based software systems, the software is installed locally on a central server, and all computers in the practice are networked to it. With cloud-based systems, the software is stored on servers outside of the practice and is accessed remotely. Server-based systems are internal to a practice's physical location and require a local network. Cloud-based systems are located externally in data centers and require an internet browser.

 **A cloud-based solution might be a great option if you:**

- 1** Plan to operate your practice for the next 5-10+ years
- 2** Want to expand to multiple locations now or in the future
- 3** Need to upgrade your storage capacity
- 4** Want reduced IT support expenses

 **A server-based solution that's on-premise may be a great choice if you:**

- 1** Don't have storage capacity issues
- 2** Have good IT support that isn't costing a fortune



On-premise solutions can be 15-20% higher overall cost when compared to cloud solutions for a DSO

due to the greater complexity of the network environment with more hardware and software required, adherence to HIPAA compliance in a more complex environment, and the cost for High Availability and Disaster Recovery for centralized networking and private cloud hosting.

Whatever the year and whoever the inventor, cloud computing has certainly experienced a rapid rate of growth. The global cloud computing market size² is estimated to secure a value of \$482 billion by the end of 2022 and reach \$1,554 billion by 2030. That's because almost 95 percent of enterprises³ use the cloud.

Whatever type of system you select, it's important to make that decision based on what works best for your practice — not simply because your competitors are doing it. You should perform a **needs assessment** and strategically plan for what you want to accomplish with your IT setup and implement detailed policies and procedures for managing it.

HARDWARE AND SOFTWARE

If you've ever been on a cruise, you know that the initial price you pay for the trip rarely includes all your meals and drinks and any of those tempting off-the-boat excursions. Your costs for the vacation typically end up being higher than you had planned due to numerous add-ons.

Although making IT decisions certainly isn't as enjoyable as going on a relaxing vacation, there are similarities when it comes to the initial investment. For example, some DSOs and group practices don't want to move to a cloud solution from a server-based system because they've already purchased expensive on-premise hardware.

However, that acquisition often doesn't include the cost of dedicated IT staff

for regular maintenance and crisis service, numerous third-party software subscriptions, continuous monitoring of the server, necessary patches, power and cooling and physical security items. It also doesn't take into account extra space you may need for a rack or server room, especially if and when you need to scale up with additional locations.

Cloud-based dental practice management solutions offer decreased expenditures through the reduction or elimination of IT equipment and storage space. They enable your practice to store patient data, including X-rays, and minimize IT staff resources, letting you focus on the base of your business—patient care. You only pay for what you need, and updates are done automatically. Opening new locations or acquiring existing practices are a much smoother process from an IT perspective.

SCALABILITY AND ACCESSIBILITY

For growing dental practices, IT agility, reliability and scalability are crucial. Although server-based practice management systems can be expensive to scale, especially when storage is tight, with cloud computing, practices are easily able to scale their solutions to fit organizational needs and goals—without investing in additional hardware. Cloud-based software is an optimal choice if you're looking to scale your practice across multiple locations.



From a server-based perspective, along with the initial hardware you often need more expensive servers and workstations to maintain a comprehensive system. On top of backups, database licensing and maintenance costs, you are still required to have your imaging, patient communication and all the other platform pieces. It's almost like re-installing a new software platform every time a major update comes out. That means a whole lot of management in addition to regular system support. **The more of those road bumps and bottlenecks you can take out of that process with a cloud-based solution, the better it is for the dental practice.**



When I speak with emerging DSOs, I tell them to switch now to a cloud-based practice management solution. If you think a server-based solution is complex, wait until you have multiple offices and have to do the same thing. It's more training, more change and more cost of change. **With a cloud-based solution, it's much easier to pick up a smaller market segment and convert it.** This advice is especially true if a practice has aspirations of growing and acquiring 20 or 30 more locations.

If you have an on-premise server, you rely on direct server access to view data. Remote access programs can be installed, but it's one more third-party management challenge. With cloud technology, you have on-demand access to computing and large storage facilities to remotely access patient records, thereby allowing dentists to more easily connect with other dental professionals and patients.

Cloud-based dental practice management systems also enable practice team members to view, edit and review data and documents without physical location constraints. This enables collaboration among dentists and reduces delays in patient treatment.

If a dentist isn't in the office but needs to pull up patient records, he or she can do so on their smartphone or another mobile device. All they need to view x-rays and review clinical history or look at business analytics is an internet connection and a browser. This unlimited access to data is cumbersome, if not impossible with a server-based system.

SECURITY AND COMPLIANCE

According to the 2022 Cost of a Data Breach Report⁷ from IBM, the average cost of a healthcare data breach jumped to a record high of \$10.1 million — \$164 per record. Cyberattacks can take a financial toll on a dental practice of any size, but they can be much more financially devastating for a small or emerging one. In fact, a major breach can even put an organization out of business.

Compared to server-based dental practice management systems, cloud computing offers better cybersecurity and lowers the risks associated with handling protected health information (PHI). It also gives DSOs and group practices a cost-effective method for achieving and maintaining compliance with regulations of the Health Insurance Portability and Accountability Act (HIPAA) and the Health Information Technology for Economic and Clinical Health (HITECH) Act. A lack of compliance with HIPAA and other government rules and regulations can result in costly civil and/or criminal penalties, a damaged reputation, and decreased patient satisfaction.

Whereas traditional IT security controls access through a perimeter security model and requires more of an infrastructure approach, cloud security uses a data-centric approach and consists of a highly connected environment through which traffic can more easily diverge from typical perimeter defenses. Cloud-based platforms use dozens of security frameworks and controls and provide dental practices with complete visibility of multiple locations from a secure and centralized access point. That way, data stays encrypted during uploads, downloads, and storage.

A few tips DSOs and group practices can follow to promote a secure and compliant cloud environment include:

- Performing a cloud readiness assessment and cost-benefit analysis, including conducting an inventory of current IT systems and applications to determine which applications would provide the most benefits with a move to the cloud.
- Developing a plan for dealing with a cyberattack if it occurs and testing it regularly.
- Routinely educating and training staff on cybersecurity.
- Defining access authorizations for all enterprise devices by regularly reviewing access permissions, keeping track of what devices employees are using to access PHI and verifying PHI and other data is encrypted in transit and at rest.
- Requiring any vendor partners to verify the risk assessment and management policies and procedures they use.

UPTIME AND DOWNTIME

Nothing will bring your practice to a halt like a server-based dental practice management system going down. **Access to accurate and up-to-date clinical data is essential for the safety of your patients.** Without it, treatment may not be possible.

Data recovery can prove to be very time-consuming, and lacking access to financial data may cause your collections and cash flow to stall. Don't forget to factor in costly IT repairs to this problematic scenario.

Cloud computing offers less risk of costly downtime. Plus, a skilled cloud service provider (CSP) knows how to integrate the cloud without disrupting your day-to-day operations.

DISASTER RECOVERY

Natural disasters like tornadoes, hurricanes and floods don't usually come with a warning and can disrupt business operations while risking large amounts of data. DSOs and group practices without a disaster recovery strategy may experience a loss in revenue and productivity, penalties due to non-compliance and other long-lasting negative effects.

If you don't think server downtime is a big deal, check out these statistics:

- ✓ Approximately 95 percent of businesses⁸ experience unexpected server downtime.
- ✓ 40% of servers⁹ suffer at least one outage a year.
- ✓ The average downtime for healthcare entities¹⁰ costs \$7,900 per minute—not including revenue loss and hefty fines for HIPAA noncompliance.
- ✓ Human error and malice are the single largest causes of system outages and downtimes¹¹.



If there's a catastrophic failure with your server, it can be at least three days until you get the practice back up and running. We have to put all the data back onto the system before bringing it back online. **That doesn't happen in a cloud-based environment because it has all the redundancy built into it.**



The two main concerns for connectivity are speed and reliability. There can be locations that are physically restricted and cloud solutions aren't the answer. However, with that said, it's a very small percentage of practices in this situation. As Internet connection has become more reliable and less expensive, this has been a non-issue for most locations. We just recommend a backup connection for both cloud practice management solutions and VoIP phones.

Disaster recovery planning, which includes selecting a technology system that limits downtime, is essential for practices in keeping their data safe and secure. It ensures that critical people and processes remain operational, minimizes the impact of unplanned events, and helps practices recover more quickly in case their server goes down, even briefly.

Server-based dental practice management systems are more susceptible to physical damage and complete data loss, especially if regular backups aren't performed. Onsite or hired IT staff is responsible for dealing with server downtime and creating a business continuity plan to deal with it. However, the costs of the data recovery using a cloud-based system could outweigh the advantages for smaller practices that aren't dependent on uptime and quick data recovery.

Cloud-based solutions offer improved backup and disaster recovery capabilities because data is continually backed up on multiple servers. Also, dentists and their staff have remote access to patient data in the event of an emergency.

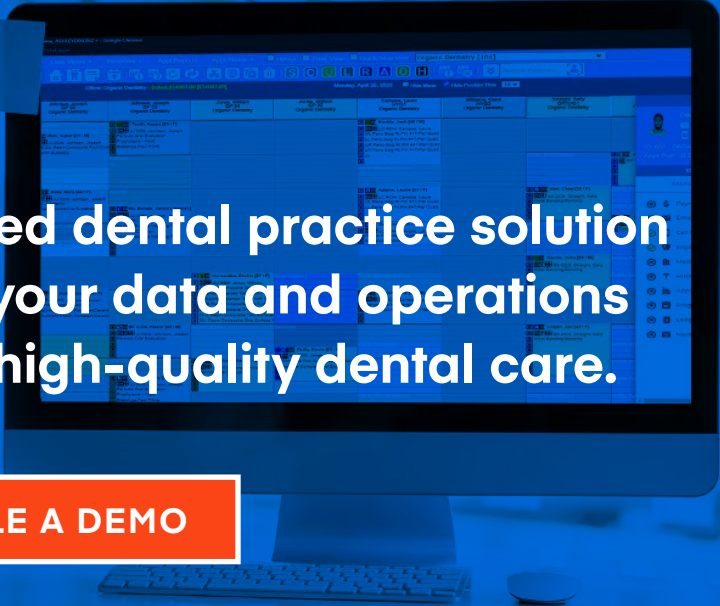
Closing Thoughts

Moving Dental Practices from Server-Based to the Cloud-Based Practice Management Solutions

Choosing the proper software foundation enhances the patient experience, increases your efficiency and optimizes your day-to-day practice operations. Although there are benefits to both server- and cloud-based dental practice management systems, more and more practices are moving to the cloud.

Why? Because it not only offers a higher level of scalability, accessibility and security but also provides less risk for downtime and quicker recovery of lost or inaccessible data due to natural disasters. Cloud-based dental software also lets you create and use a single patient and provider record, and it automatically updates, negating the need for duplicate records.

With a cloud-based system, DSOs and group practices have access to a variety of tools many patients prefer, including online scheduling and payment, automated appointment reminders, patient portals, anytime access to test results and other communications channels. Having the right CSP ensures practice staff knows how to use the software to its top potential, making the move from a server-based system seamless.



Learn how one cloud-based dental practice solution can help you centralize your data and operations and focus on providing high-quality dental care.

SCHEDULE A DEMO

Sources

1. Centriserve, <http://centriserveit.com/dental-it>
2. GVR, <https://www.grandviewresearch.com/press-release/global-cloud-computing-market>
3. SG Analytics, <https://us.sganalytics.com/blog/94-of-enterprises-already-use-some-type-of-cloud-service-importance-of-cloud-governance/>
4. Precedence Research, <https://www.precedenceresearch.com/healthcare-cloud-computing-market>
5. Markets and Markets, <https://www.marketsandmarkets.com/>
6. McKinsey Digital, <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/clouds-trillion-dollar-prize-is-up-for-grabs>
7. IBM, <https://www.ibm.com/reports/data-breach>
8. Queue It, <https://queue-it.com/blog/cost-of-downtime/>
9. Veeam, <https://www.veeam.com/wp-data-protection-trends-report.html>
10. Summit Healthcare, <https://www.summit-healthcare.com/the-cost-of-an-ehr-downtime/>
11. NetTech Consultants, Inc., <https://nettechconsultants.com/blog/healthcare-unscheduled-downtime-cost/>



Planet DDS is the leading provider of cloud-enabled dental software solutions serving over 10,000 practices in North America with over 60,000 users. The company delivers a complete platform of solutions for dental practices including Denticon Practice Management, Apteryx XVWeb Cloud Imaging, and Legwork Patient Relationship Management. Planet DDS is committed to creating value for its dental practice clients by solving the most urgent challenges facing today's dental practices in North America.