

San Diego community dentist builds paperless and fully digital image practice & complies with HIPAA Security Rule using a Microsoft® Windows® Powered Iomega NAS server

Fletcher Dental Care embraced all of the advances technology has to offer in improving the quality of service and efficiency in which it delivers dental care to its patients—from a paperless office to a full digital dental imaging system. This means the information the dentists and staff need for any patient is right at their fingertips when they need it. Time-to-data is critical for Fletcher Dental Care to provide its patients with the highest level of care possible. When Fletcher Dental Care needed to decide how and where to store its patient information and digital images, they turned to Innovapp Inc. (doing business as HipaaManager™), a provider of HIPAA compliance processes for a recommendation. The hot-swappable disks for increased reliability and seamlessly integration with the existing infrastructure made the Window Powered Iomega NAS server the clear choice.

Situation

In addition to providing quality care to their patients, health care providers face a number of challenges in running their practice. It's common knowledge that health care paperwork accounts for a significant percentage of the high cost of health care. New government regulations, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA), are dictating new procedures and policies be implemented to protect the confidentiality of patient information, as well as how long health care providers must retain their records. Health care providers are relying on IT solutions to address the myriad of new requirements placed on them.

New paperless and film-less, computer-based solutions that enable providers to collect, store, and securely transmit patient information and dental images are becoming increasingly popular as a means to cut costs and improve patient care.

Fletcher Dental Care, a progressive full-service dental care provider serving the community in San Diego, California, installed a nearly paperless medical record keeping system and a digital dental imaging system before opening their doors. As a result, Fletcher Dental Care operates at significantly lower costs and with fewer administrators compared to similarly sized practices. This translates into better care provided to the patients at a lower cost to the patient and better profitability for the practice. Fletcher Dental Care has multiple fully-networked treatment rooms, a complete X-Ray and intra-oral digital imaging systems as well as a full-skull panoramic X-Ray machine. To maintain its high standards and ensure that the members of the community have access to excellent dental care services, Fletcher Dental continues to develop strategies to allocate resources efficiently.

Even before Fletcher Dental Care opened its doors for business, Dr. Sukhorukov insisted on an electronic workflow. Fletcher Dental Care uses DENTRIX® for practice management and DENTRIX Image® for its dental imaging system. All patient charts, billing, insurance records and dental images are maintained in the system. All treatment and procedure notes are captured as they are completed in the treatment rooms. No more duplicated work, double entry or missing patient records or images; instead, everything is in one location.



FLETCHER
DENTAL CARE

Solution Overview

Customer Profile

Fletcher Dental Care is a full service dental practice serving the community in San Diego, California. When Dr. Sukhorukov founded Fletcher Dental Care, he wanted to make sure the practice took advantage of the latest advances in office automation and patient care.

Business Situation

Fletcher Dental Care is a paperless and film-less office. Almost all patient information (treatments, billing information, procedures and scheduling) is done with his dental practice management system. The office's X-Ray and Intra-oral imaging systems are fully digital. Fletcher Dental Care needed a flexible, cost-effective and highly reliable storage solution. In addition, the practice needed to implement a data backup and disaster recovery plan to comply with the HIPAA Security Rule.

Solution

Fletcher Dental Care chose a Windows Powered Iomega NAS 400m server for storing patient information and dental images and complying with the HIPAA Security Rule coming into effect in April 2005. Fletcher Dental relies on HipaaManager™ to ensure its administrative procedures also comply with HIPAA regulations.

Benefits

- High reliability
- Seamless integration with existing environment
- Integrated security and data protection features
- Lower total cost of ownership

Software and Services

Microsoft® Windows® Power NAS

Hardware

Iomega NAS 400m Server

Partners

Iomega Corporation
Innovapp/HipaaManager™
Microsoft



When FDC designed and installed its IT infrastructure, storage was going to be an important consideration. The practice needed a reliable storage solution for patient information, dental images, practice information and backup and disaster recovery process. Dr. Sukhorukov, approached HipaaManager™/Innovapp, a provider of technology and HIPAA compliance solutions, to explore storage options. HipaaManager™/Innovapp quickly assessed FDC's needs and identified the Window Powered Iomega NAS as an ideal solution. "The Windows Power Iomega NAS met all of our requirements for reliability, availability, ease of management, connectivity and integrated security," Dr. Sukhorukov says.

Solution

Fletcher Dental Care purchased a Windows® Powered Iomega NAS 400m server from HipaaManager™. The server features an optimized version of the Microsoft® Windows 2000 operating system, 320 gigabytes (GB) of RAID-redundant storage across four hot-swappable hard disks, native support for Active Directory® service, dual network interface cards (NICs), and several value-added software features, including a Web-based user interface, Persistent Storage Manager, and Iomega management utilities and back-up software.

The unit was added directly to FDC practice management and dental imaging system to provide immediate storage capacity. The DENTRIX system stores all of the office's patient files and dental images in a central location on the NAS server so the dentists, assistants and office staff responsible for patient care or administration have immediate access to the information.



"The hot-swappable disk drives are an especially valuable feature of the Windows Powered Iomega NAS... Shutting down the NAS server would disrupt patient care. One disk drive out of four can go out, and the NAS server keeps running... We can switch out a bad drive without having to take down the whole system which allows us to continue providing dental care and running the business without interruptions..."

Dr. Sukhorukov
Managing Partner
Fletcher Dental Care

Benefits

High Reliability and Availability

Because the DENTRIX practice management and dental imaging system is the backbone of FDC, reliability and availability are critical. Three key features of the Windows Powered Iomega NAS convinced FDC that this solution would meet its requirements for reliability and availability:

- Hot-swappable disk drives enable technicians to replace a disk drive while the system continues to run. "The hot-swappable disk drives are an especially valuable feature of the Windows Powered Iomega NAS," Dr. Sukhorukov says. "Shutting down the NAS server is not an option. We use a RAID 5 configuration, so one disk drive out of the four can go out, and the NAS keeps running. Hot-swappable disk drives mean we can switch out a bad one without having to take down the whole system. We just pull the disk drive out and slide in a new one."
- Persistent Storage Manager (PSM) takes point-in-time snapshots of the data stored on the Iomega NAS, providing an ideal backup and recovery solution.
- Dual Network Interfaces Cards (NIC) provide load balancing for improved data transfer performance. NIC teaming and Ethernet failover ensure continuous data access even in the event of a NIC failure.



HIPAA Security Regulation Compliance

The HIPAA Security Rule is very comprehensive, and sometimes confusing, with 19 standards and 42 specifications to consider. The documentation requirement is daunting and no specific guidance is provided to address requirements. Limited resources and security expertise around HIPAA makes compliance an expensive proposition for many small to medium sized healthcare providers.

Installing the Windows Powered Iomega NAS 400m server provides the foundation for FDC's backup plan and disaster recovery plan to comply with the Technical Safeguards portion of the HIPAA Security Rule. The high reliability and availability features (hot-swap, RAID 5, PSM) provide an easy & cost-effective way to protect electronic patient information in case of component failures, operator errors or other disasters.



Seamless Integration with Existing Systems

The optimized version of the Windows 2000 Server operating system on the Iomega NAS integrates seamlessly with FDC Windows®-based infrastructure. "Installing and configuring the Iomega NAS device in our environment happened quickly and without any problems," says Dr. Sukhorukov.

Integrated Security

Tight security is imperative when working with confidential patient information—especially in light of HIPAA regulations. The Windows Powered Iomega NAS 400m provides FDC with improved security by offering a thoroughly tested, comprehensive, and unified operating system. Users access network resources through a single sign-on, and administrators can use powerful and consistent tools to manage security services for users, patient care and billing processes, and also means less user frustration and lower labor costs.

Low Total Cost of Ownership

FDC has saved significant costs through productivity improvements. With the Windows Powered Iomega NAS users easily access information, patient records and dental images to expedite patient care and office processes, which means less user frustration and lower labor costs.

"Installing and configuring the Iomega NAS server in our environment happened quickly and without any problems," says Dr. Sukhoukov.

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