

CASE STUDY

## Verizon Connected Healthcare Solutions



# Maimonides Medical Center Leads Healthcare IT Transformation

### **A major New York hospital addresses HIPAA requirements while improving the speed, security, and reliability of access to critical healthcare data.**

Since 1996, Maimonides Medical Center (MMC) has enhanced the doctor-patient relationship with reliable and detailed online healthcare information, providing doctors and patients a chance to make better-informed decisions.

That type of forward-thinking has the 705-bed hospital, located in Brooklyn, New York, on the leading-edge of a government-mandated shift to electronic record keeping and retrieval in the healthcare industry.

The speed and efficiency of care is enhanced when a nurse or physician can access patient records electronically within seconds. "Paper is cumbersome," says Maimonides Medical Center CIO Walter Fahey. "For a doctor, it's easier to pull up information on a screen, rather than request a chart to be shipped to an office."

Fahey and other Maimonides healthcare executives have expanded their electronic records program across affiliated facilities, including several nursing homes, Metropolitan Jewish Health System, and homecare agencies. The system, known as the Brooklyn Health Information Exchange (BHIX), captures six categories of information: patient demographics, allergies (food and drug), Advance Directives, medication history, treating physicians, and treatment history.

Under Maimonides' leadership, BHIX has become part of a larger, statewide and nationwide effort to improve healthcare through the use of secure and interoperable health information technology.

To support this vital program, MMC and Verizon Business worked together to design high-speed optical Ethernet services to connect the MMC data center, the main buildings on the campus, and 24 remote facilities. The network supports recordkeeping and data access initiatives, such as the Picture Archiving Communications System (PACS). PACS transmits large files such as CT-scans and x-rays to doctors in seconds. At Maimonides, clinicians view more than 500,000 images per month. Diversely routed links help ensure the information is available when and where it's needed.

### **Secure record retrieval on the go with wireless**

With wireless data access from Verizon Business, MMC caregivers are going mobile, enjoying rapid access to electronic records, decision support tools, reference materials, and contacts.

They use point-of-care laptops and a secure wireless LAN infrastructure to input patient information, view records, capture examination information, and schedule x-rays, MRIs, and other tests. The mobile application is especially useful in the emergency room, where every minute counts.

And the hospital enjoys reliable Verizon Wireless coverage. Fahey notes that mobile phone and BlackBerry reception is strong even in the underground areas of the complex.

### **Rewarding Work: Improving Healthcare with IT Innovation**

Maimonides Medical Center has received numerous awards for its use of information technology solutions, including recognition from Hospitals and Health Networks for leadership in use of both wired and wireless technologies.

With the help of Verizon Business communications, network, and security services capabilities, the hospital has taken a leading role in the government-mandated shift to electronic recordkeeping, and the implementation of new and innovative point-of-care patient data access applications.



The ability of nurses and doctors to quickly access information where and when they need it contributes significantly to their effectiveness and, ultimately, to the patients' health and well being.

### Information security vital to success

In tandem with information technology upgrades, Fahey must also work to ensure data security is up to standards and meets regulations such as the Health Insurance Portability and Accountability Act (HIPAA), which was instituted in 1996 in the United States to establish national standards for electronic healthcare transactions.

**"We are making their electronic records available, and it is all done securely, with privacy protected. And Verizon Business is providing the secure infrastructure and security management services to do it."**

**WALTER FAHEY, MAIMONIDES MEDICAL CENTER CIO**

While Fahey employs an extremely knowledgeable and capable staff, he also has a limited budget. "You don't have the opportunity to hire in all the areas of expertise that you would like," he says.

That's why he turned to us for a wired and wireless network architecture security assessment and a firewall configuration review. Fahey says he could not match the technology and expertise that Verizon Cybertrust Security brought to the table.

"Verizon Cybertrust Security has the resources and equipment that I can't afford to invest in," he notes. "And the technology is rapidly changing which means I would have to invest in maintaining and upgrading the system." Instead, Fahey relies on our in-house expertise and extensive resources to perform certain security functions.

Our security consultants were able to identify a number of vulnerabilities on MMC's wired and wireless network environments, including weak spots that could have been maliciously exploited by intruders to gain access to sensitive information. By proactively engaging us prior to an incident and acting on our recommendations for remediation, MMC eliminated the vulnerabilities and reduced the likelihood of an intrusion in the future.

### Technology serving the needs of the patient

The design of the MMC network includes integrated quality of service mechanisms for prioritizing traffic, a precursor for voice over IP (VoIP), providing an opportunity for the hospital to take advantage of feature-rich IP phones and clinical devices.

But for the present, Fahey says our network services and professional security services have "helped tremendously in not only caring for the patient, but helped physicians with access to data in emergency situations. Because past histories are available online, treatment can begin sooner."

And if needed, MMC records can be transported over the Verizon Business backbone to other New York City health facilities via the BHIX, a regional health information organization (RHIO) spearheaded by Maimonides. "We are making their electronic record available, and it is all done securely, with privacy protected," says Fahey. "And Verizon Business is providing the secure infrastructure and security management services to do it."

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Verizon Business, a unit of Verizon Communications (NYSE: VZ), is a global leader in communications and IT solutions. We combine professional expertise with one of the world's most connected IP networks to deliver award-winning communications, IT, information security and network solutions. We securely connect today's extended enterprises of widespread and mobile customers, partners, suppliers and employees—enabling them to increase productivity and efficiency and help preserve the environment. Many of the world's largest businesses and governments—including 96 percent of the Fortune 1000 and thousands of government agencies and educational institutions—rely on our professional and managed services and network technologies to accelerate their business. Find out more at [www.verizonbusiness.com](http://www.verizonbusiness.com).

