

Heightened responsiveness improves patient care with the Vocera wireless voice communication solution and IBM



The business challenge

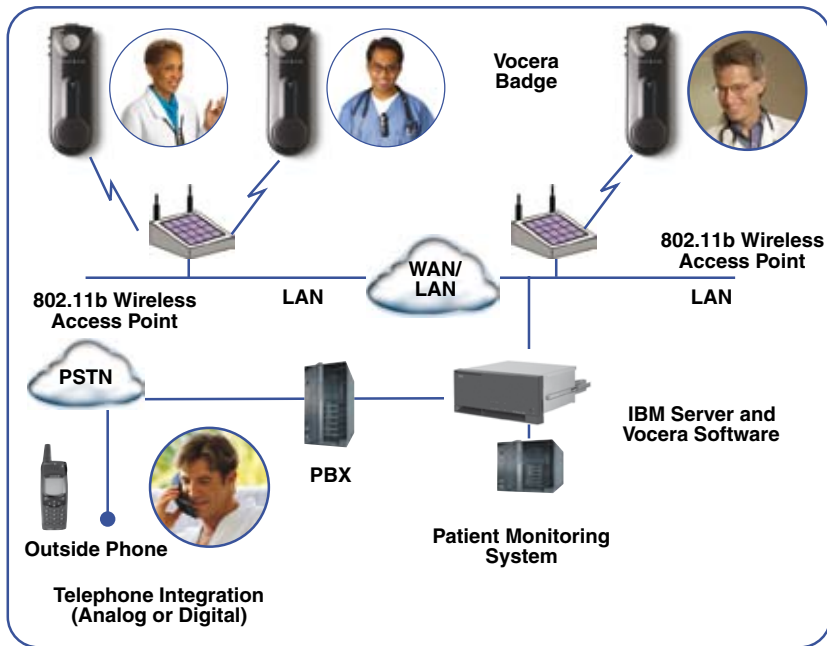
Always on the move, from clinic to hospital, from room to room, from bedside to bedside, doctors and nurses increasingly rely on wireless technology to streamline information flow and make timely decisions about patient care. Yet not all wireless solutions are created equally.

Many prevalent systems come with well-known disadvantages. In-building wireless phone systems, for instance, require personnel to remember phone numbers and are not hands-free. Mobile phones, if even allowed in a hospital, often experience degraded signals from walls, ceilings and medical equipment. Two-way 'walkie-talkie' systems operate in open networks, which compromise concerns for privacy. Overhead paging is disruptive and slow, which results in less time with patients.

Overview

- ***Instant communication between healthcare professionals facilitates decision making, improving patient care***
- ***Eliminates the need to memorise phone and extension numbers, helping to save time and to improve productivity and employee satisfaction***
- ***Easy-to-use wireless voice system gives users control with naturally spoken commands, enabling hands-free conversations among people throughout the workplace and beyond***
- ***Helps save money by lowering or eliminating mobile phone and pager costs.***

Vocera system



Enter wireless voice – the perfect Rx

Today, leading medical facilities are turning to a wireless voice communication system from Vocera and IBM to dramatically reduce response times among clinicians and other support staff, as well as management personnel. Wireless voice technology enables mobile staff members to instantly communicate, sending and receiving messages hands-free, over a lightweight, wearable communication badge – about the size of a pack of chewing gum.

As hospital administrators and staff look to overcome traditional wireless disadvantages, Vocera's evolutionary wireless communication system is being recognised as the perfect Rx. It's a cost-effective tool that greatly improves staff productivity and helps enable fast response to patient needs. It also easily scales from small to large environments, making it an ideal platform for growth.

The IBM solution

The Vocera Solution for Healthcare from IBM enables instant wireless voice communication that users can control with naturally spoken commands. Instead of responding to pagers or keying phones, a clinician uses the Vocera Communications Badge that operates with simple voice commands such as "Call Dr. Smith" or "Call pharmacy". The voice prompt instantly connects staff to the people they need, thereby reducing phone tag, overhead paging, or the need to physically search for a person.

This voice-controlled wireless communication system not only lets hospital staff communicate instantaneously on campus, but also enables calls to and from traditional phone and mobile networks. PBX integration allows for incoming and outgoing internal, local and long distance calls.

To bring the solution together, IBM Integrated Technology Services, a part of IBM Global Services, has worked closely with Vocera Communications, a provider of wireless voice communication, to solve the challenge of integrating wireless voice with back-end hospital management systems. IBM uses proven methodologies to integrate a multivendor solution in your environment. IBM also has relationships with multiple medical technology companies, allowing us to successfully integrate the Vocera solutions with existing nurse-call or patient monitoring systems.

Increases staff productivity

Mobile staff members utilise this wireless communication system which eliminates the need to 'page and wait' and reduces the time it takes to assist patients. They no longer have to memorise extension numbers to find co-workers or get lab results. Plus, one-on-one and one-to-many messaging options reduce noisy overhead paging, which can disturb staff and patients. With less time picking up phones or seeking staff, mobile staff have more time to spend with patients.

Vocera's workflow advantage

The Vocera Communications solution combines database technology with voice recognition to create a convenient and intuitive system that connects people throughout the organisation – essential when speed and cooperation are critical. Hospitals use Vocera's advanced address book capabilities to create specific work and call flow profiles for each end user's name, job function and group. These unique profiles allow staff members to call by function or group in a 'round robin' or sequential fashion, such as "call transport" or "find the charge nurse". If the end user is unavailable or does not respond, the Vocera system automatically routes the call to the next person in the work/call flow group. The system eliminates wasted time waiting on hold or leaving messages and waiting for a response.

The wearable badge

What makes the system so convenient to use is the Vocera Communications Badge, a small, lightweight, wireless device that provides a voice-controlled user interface to the Vocera System Software. The badge – attached to a lanyard worn around the neck, or clipped to a lapel or shirt pocket – is activated by a push of a button or voice command to receive or generate calls. Using the badge, you can call one or more people at a time, get help from a predefined department, or communicate with co-workers or outside resources by using just your voice – leaving hands free for more important things. The badge also has an LCD display screen to read e-mail and text messaging.

Save bandwidth and costs in converged network

The Vocera Solution for Healthcare from IBM operates over a wireless infrastructure using the 802.11b protocol. The system maintains high voice quality in the face of network traffic by making extremely efficient use of wireless bandwidth. Because the Vocera solution requires very little network bandwidth, both voice and data traffic can flow on one converged network. Consequently, hospitals can leverage current investments in wireless local-area networks (LAN), and there are no recurring monthly service fees, unlike mobile phones and pagers.



Upgradeable and scalable to fit needs

The Vocera System Software, which runs on an IBM **@server** system, contains system intelligence that manages calls, call connections and user profiles, as well as speech recognition and voiceprint verification software. The entire system architecture can be upgraded with additional functionality – including telephony software to allow users to place and receive calls from traditional phone systems – from one central location. The server architecture is highly extensible and can adapt to a changing healthcare environment.

Vocera also offers a Developer Program where various hospital systems can directly interface with the Vocera solution. Integration with nurse call systems is currently available through Emergin, a third-party vendor, and is also available directly from Vocera through participation in the Developer Program.

The IBM wireless advantage

IBM is leading the way in implementing wireless solutions across a broad range of industries, including healthcare. Every day, we are helping healthcare organisations to achieve greater productivity, improve patient care, and increase profitability – through innovative wireless technology like the Vocera Solution for Healthcare from IBM.

Complete with services, hardware and software components, this solution is designed to help hospitals build an instant communications network that delivers a strong return on investment. From LAN servers right down to training for staff, IBM can help your medical professionals become more responsive to patient care with a solid wireless foundation that can grow where and when needed.

Solution components

- IBM **@server** hardware systems
- Vocera System Software
- Vocera Communications Badges and accessories
- Optional Vocera Report Server Software
- Optional Vocera Telephony Software
- Optional Vocera Messaging Interface.

Services

- IBM Global Services, IBM Integrated Technology Services
- 24x7x365 technical support.

For more information

To learn more about the Vocera Solution for Healthcare from IBM, please contact:

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