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SPOK® MESSENGER

Improving Staff Efficiency and Patient Care with Timely Communications and Critical Connectivity

THE CHALLENGE OF PROVIDING PATIENT CARE WHILE MAINTAINING EFFICIENCY

Many hospitals today face the same challenge. Everyone agrees that quality and speed of patient care are essential. Yet, the highly mobile staff at most healthcare facilities often cannot provide the best care possible due to poor communications procedures. Staff members have become frustrated at the inefficiency that results with undirected updates and alerts being sent to clinicians and other staff members. One patient's lab results have come in. Another is reporting pain through the nurse call system. A third's heart monitor is beeping. Someone wants to speak with a doctor. The security system is acting up. The list goes on.

How has this happened? It's simple. Today's technology—point-of-care, safety, nurse call, and other systems—generates a lot of valuable information that needs to be shared. The trouble is that it's not being shared in meaningful ways with the right people. The result is slower response to critical events, and patient care, safety, and satisfaction can suffer.

SPOK MESSENGER: ENABLING CRITICAL CONNECTIVITY AND FAST RESPONSE

Spok® Messenger is intelligent middleware that sends critical information and updates from your alert systems, such as nurse call, patient monitoring, and many others to mobile staff on their wireless communication devices. At a high level, it creates an enterprise-wide approach to the management, prioritisation, and response to key events. This includes the ability to send messages to the right people based on rules set up in your hospital, including escalated communications whenever necessary. It also means you can manage devices easily and allocate staff appropriately.

Ultimately, being able to reach mobile team members within seconds of a critical alert improves overall workflow, staff productivity, and the comfort and safety of everyone in your facility.

Spok Messenger works with virtually all end user communication devices on the market, including smartphones and tablets. This is key as "smart devices" have become an essential component of hospital communications. Spok Messenger sends alerts to iPhone,® Android,® and BlackBerry® phones and tablets. This capability enables a streamlined workflow where critical information flows securely from clinical machines to mobile caregivers to additional caregivers if needed, all in the interest of top-notch patient care.

> "We've enjoyed many benefits from our relationship with Spok. We're particularly pleased with the noticeable staff, visitor, and patient safety improvements we've gained in our high-care dementia facility."
>
> Phil Coppin
> ICT Operations Manager
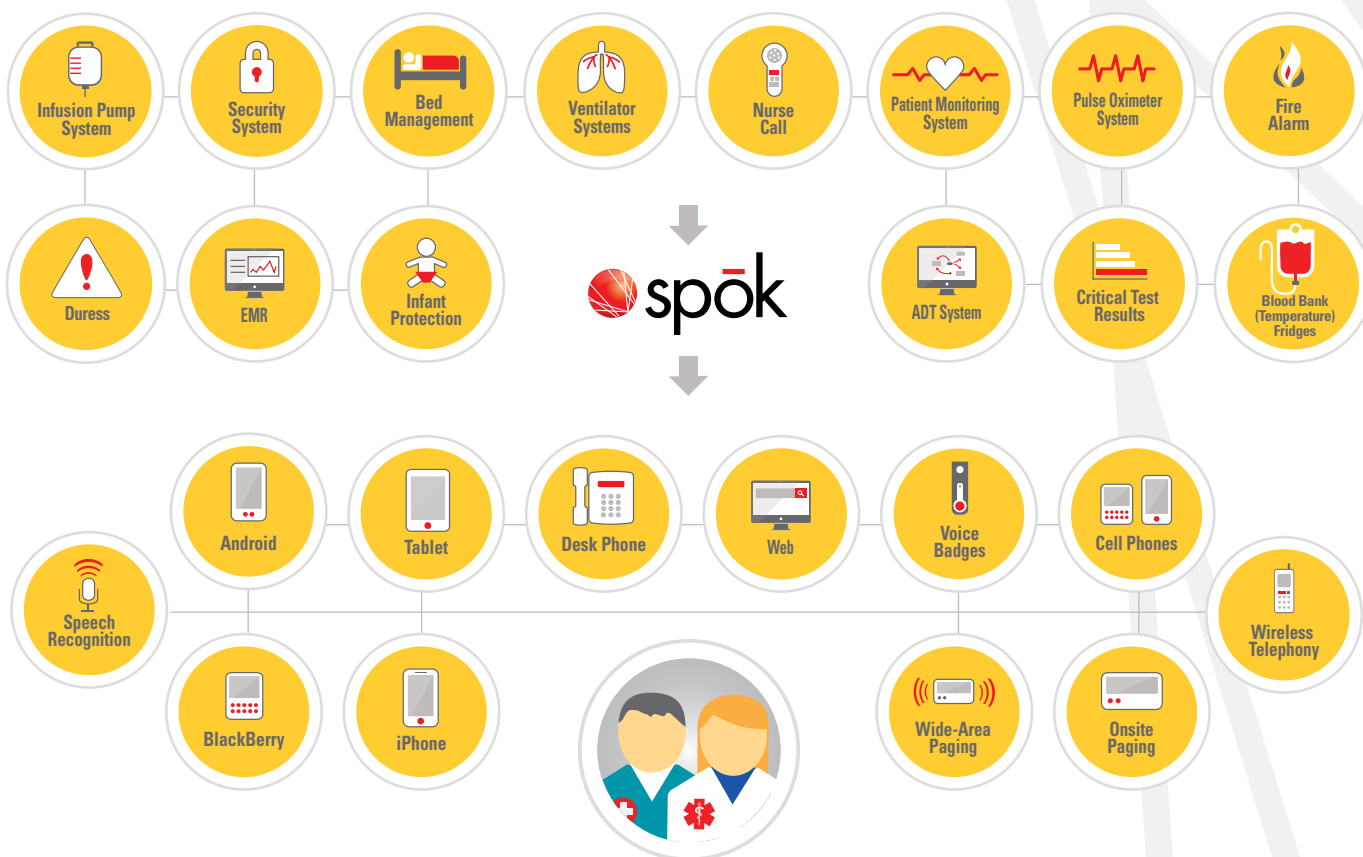> Bendigo Health, VIC, Australia

MANAGING TODAY'S SOURCES OF INFORMATION

Healthcare organisations need effective ways of centralising all of the information generated by clinical and security systems and distributing it to the right person. They also need technology with demonstrable ROI.

Spok enables healthcare organisations to expand the possibilities of their existing communications infrastructure with a critical layer of connectivity and meaningful information sharing. As the leader in this space, Spok lets you create powerful linkages among your systems, technology, and staff. Erasing system boundaries and taking a unified communications approach is essential to your ability to achieve ROI, higher levels of efficiency for staff, and better patient care, safety, and satisfaction.

› "Greenslopes strives for superior patient care and excellence while focusing on quality systems, and Spok Messenger fits in very nicely. Spok Messenger not only allows us to send notifications to our pagers, but we are able to send messages to staff via email and mobile phones as well."

Steve Morland
Biomedical Technical Officer
Greenslopes Private Hospital, QLD, Australia

Infusion Pump System · Security System · Bed Management · Ventilator Systems · Nurse Call · Patient Monitoring System · Pulse Oximeter System · Fire Alarm · Duress · EMR · Infant Protection · ADT System · Critical Test Results · Blood Bank (Temperature) Fridges

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Android · Tablet · Desk Phone · Web · Voice Badges · Cell Phones · Speech Recognition · BlackBerry · iPhone · Wide-Area Paging · Onsite Paging · Wireless Telephony

LEVERAGING BEST-IN-CLASS CAPABILITIES

PROVIDING THE FUNCTIONALITY THAT ENABLES QUICK RESPONSE

Integration to your communication devices: Whether your organisation uses in-building wireless phones, LED signs, voice communication badges, pagers, smartphones, or even all of them in the same facility, ensure staff receive alarms and updates on the appropriate devices at all times. Spok Messenger has proven interoperability with virtually all communication output devices. (See the complete list on the next page.)

Mobile web messaging: Leverage support for mobile web-based messaging with any Spok Messenger user or station from Android or iPhone clients.

Alarm filtering: Establish rules that direct the right alarms to the right staff members to eliminate unnecessary alerts. Filtering also means off-duty staff aren't bothered by updates that don't occur during their shift.

Assignment client: Enhance workflows and increase efficiency with assignment and scheduling tools. This ensures that updates are sent to the right person based on his or her role and device preferences.

Integrated messaging using industry-standard methods for common alarm/input systems (HL7) standards-based systems: Systems such as lab results, radiology results, and patient vitals can be directly linked to your staff's wireless devices for fast updates. Doctors no longer need to call down to the lab requesting results, the lab techs no longer need to play phone tag with the doctors, and overall patient care is improved by speeding up this communication. Spok is an active participant in the efforts of Integrating the Healthcare Enterprise (IHE) to standardise these systems for ease of implementation. Spok views this organisation as the future of hospital system integration and even holds a seat on the IHE standards board.

ENSURING SECURITY AND EASE OF ADMINISTRATION

User-configured access and filtering by department: Ensure users see only what they need to based on their role/department. Advanced filtering means fewer broad-based alerts go to people who don't need to receive them.

Extensible messaging support: Plan for the future with an extensible system that can grow with your organisation as new devices and systems are required. You won't have to forklift your entire messaging strategy every time something changes.
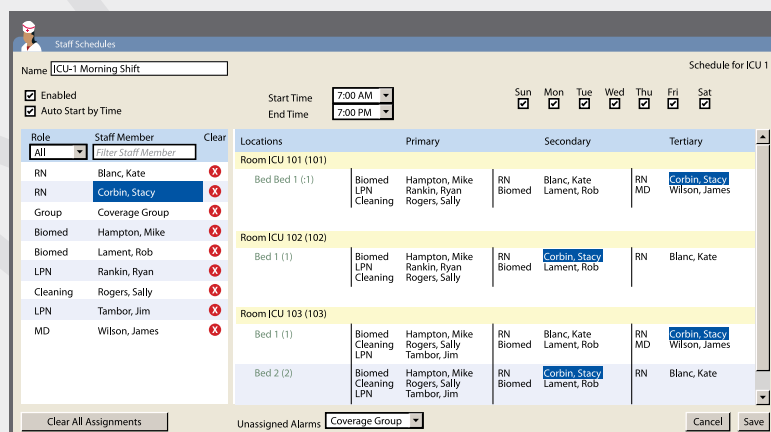
Staff assignment screen: View staff assignments by shift, including secondary and tertiary personnel who will receive message updates.

Name	Unit	Location	Duration	Assignment	Alarm Source	Status
VTACH	West Tower 3	Room 3004 Bed 2	0:00:24	B.Arnson, J. Tomas	Patient Monitoring	Delivered
Shower Call	West Tower 3	Room 3012 Bed 1	0:00:32	J. Timons	Nurse Call	Read
Normal Call	West Tower 2	Room 3018 Bed 2	0:00:47	M. Walters	Nurse Call	Read
Bed Exit	West Tower 3	Room 3005 Bed 1	0:00:22	J. Tomas, B.Arnson	Bed Management	Delivered
HR Alarm	West Tower 2	Room 3009 Bed 2	0:00:10	K. Andrews	Patient Monitoring	Queued

Active Alarms screen: View all active alarms on the Spok Messenger system with duration and configurable colors for alarm types or priority.

Web-based administration: Many functions within Spok Messenger can be accomplished securely online. This centralised, thin-client approach makes the solution easier to deploy and maintain.

Integration with the full Spok suite: As the leader in mission-critical communications, Spok offers healthcare organisations a broad suite of integrated solutions. In addition to Spok Messenger, this spans communications tools for contact centre management, web-based employee directories, on-call rostering, speech recognition, enhanced 911, emergency and incident management, smartphone communications, critical test results management, and paging.

PROVEN INTEROPERABILITY AND INTEGRATIONS

SPOK MESSENGER SENSES SYSTEM ALERTS AND SENDS MESSAGES

- Bed management
- Building automation
- Computer-aided dispatch
- Computerised physician order entry (CPOE)
- Critical test results management
- Electronic medical records
- Fire alarms

- HVAC
- Infant abduction
- Infusion pumps
- Lab information systems
- Location-based services
- Medication management
- Nurse call

- Operator consoles
- Patient information systems
- Patient monitoring
- Pneumatic tubes
- Pulse oximeters
- Security
- Ventilators

COMMUNICATION DEVICES RECEIVING MESSAGES AND FACILITATING RESPONSE

- Smartphones (iPhone, BlackBerry and Android)
- Tablets
- Voice communication badges
- Two-way pagers

- In-house wireless telephones
- Pagers (onsite and wide area)
- LED signs
- SMS
- Plasma / LCD

- Email interface
- Operator consoles

ENTERPRISE-READY ARCHITECTURE

- High reliability, scalability, and failover capabilities mean less downtime, you won't suffer from slow response, and you won't outgrow the system
- The Spok Health Service Monitor improves solution resiliency by detecting potential issues and sending notifications to both Spok and the customer. This module is included with Spok solutions to help with suite-wide reliability, monitoring, and notification.
- Highly scalable system architecture, supporting extensibility and redundancy
- Compliant with VMware®
- Supports storing data on customer SAN
- Multi-user, IP-based messaging platform operating under Microsoft® Windows®
- Client software is browser-based and has no need for fat clients on machines

WORKING WITH THE LEADER IN MISSION-CRITICAL HEALTHCARE COMMUNICATIONS

- Spok Messenger is field-proven and in use at hundreds of locations worldwide
- Spok is committed to working with a wide array of device vendors, always adding new integrations
- Spok Messenger is a strategic focus for Spok and thus receives R&D spend for product enhancement
- Full suite for mission-critical communications
- 24 / 7 / 365 in-house support
- Proven implementation methodology
- Comprehensive training—onsite and classroom

SPOK MESSENGER: BOTTOM LINE

- Improve care and safety
- Improve satisfaction of staff, patients, and family members
- Improve staff efficiency
- Work with a vendor with proven experience and referenceable customers
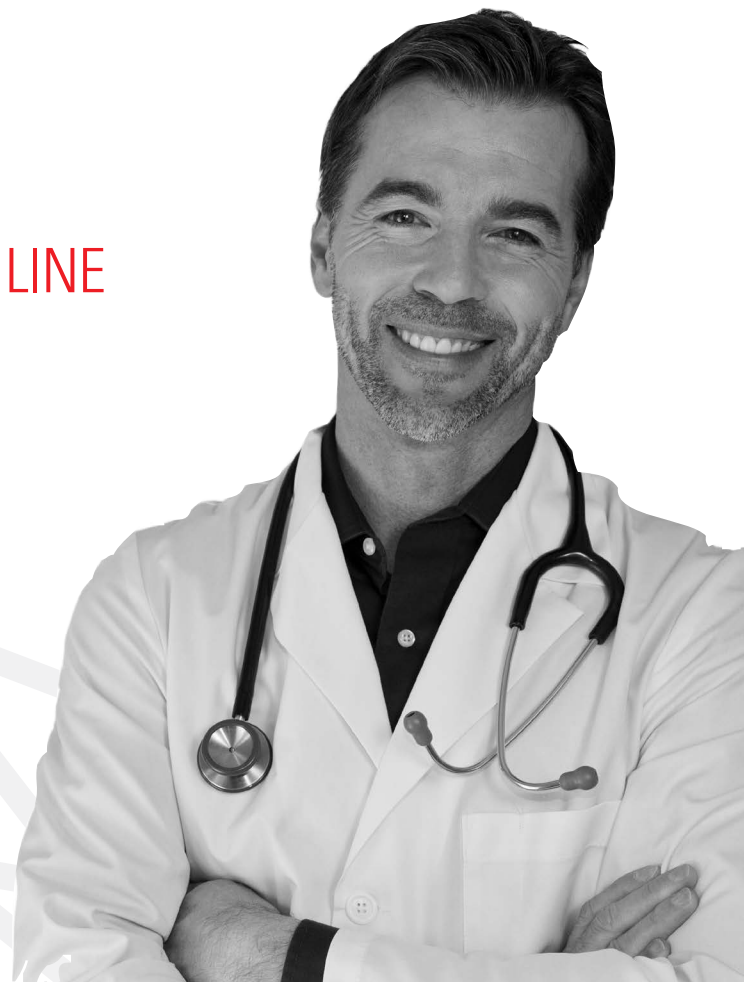
SPOK MESSENGER IN ACTION AT BENDIGO HEALTH

OVERVIEW

Bendigo Health is an expanding, multi-service regional health organisation. Based in Bendigo, Australia, it is one of the largest regional health providers in the state of Victoria.

CHALLENGE

Bendigo Health recognised the value of sharing crucial information via mobile communication devices, but was challenged by the variety of devices and systems needing to be connected throughout its facilities. Currently, the organisation supports a wide array of Cisco® wireless phones, BlackBerry® and other smartphones, Rauland-Borg® and Merlon® nurse call systems, pagers, desktops and tablets. Another challenge faced by the information and communications technologies (ICT) group of Bendigo Health is a familiar one – resourcing for these rapidly changing technologies and doing this while meeting the healthcare organisation's goals of continually improving patient care, staff safety and effectiveness.

SOLUTION

Because of its demonstrated ability to integrate virtually any communications device, Spok Messenger was chosen to enable quick, accurate messaging across all device platforms.

Bendigo Health wanted to improve its duress call capabilities throughout a four-wing, 60-bed dementia care facility to help enhance staff, visitor, and patient safety. To do that, they selected the AeroScout® Wi-Fi RFID solution, linked to Cisco wireless phones, smartphones, pagers, and other communication devices via Spok Messenger. This real-time location system's (RTLS) Staff Safety solution enables a caregiver to press a button to call for assistance when a situation escalates. While the duress alarm is significant, the RTLS signal is even more crucial, because it also delivers information to identify the location of the incident. The AeroScout message is delivered to Spok Messenger, which transmits the complete duress signal and location information to everyone on the network on their chosen communications device.

Spok Messenger is also used to deliver alerts sent from monitoring equipment in the hospital's drug and food storage refrigerators. Staff receive alerts whenever monitors detect a change in storage conditions.

RESULTS

"We're particularly pleased with the noticeable staff, visitor, and patient safety improvements we've gained in our high-care dementia facility," said Bendigo Health's ICT Operations Manager, Phil Coppin. "Our caregivers now feel much safer. In fact, we've successfully handled 100 percent of the duress calls made since we've had the AeroScout Staff Safety and Spok Messenger systems in place."

Coppin concluded, "We're convinced that by pushing the envelope with wirelessly advanced systems, we can enhance efficiency and effectiveness, improve onsite safety, and provide better patient care."

ABOUT SPOK, INC.

Spok, Inc. (NASDAQ: SPOK) is proud to be a leader in critical communications for healthcare, government, public safety, and other industries. We deliver smart, reliable solutions to help protect the health, well-being, and safety of people around the globe. More than 125,000 organisations worldwide rely on Spok for workflow improvement, secure texting, paging services, contact centre optimisation, and public safety response. When communications matter, Spok delivers.

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