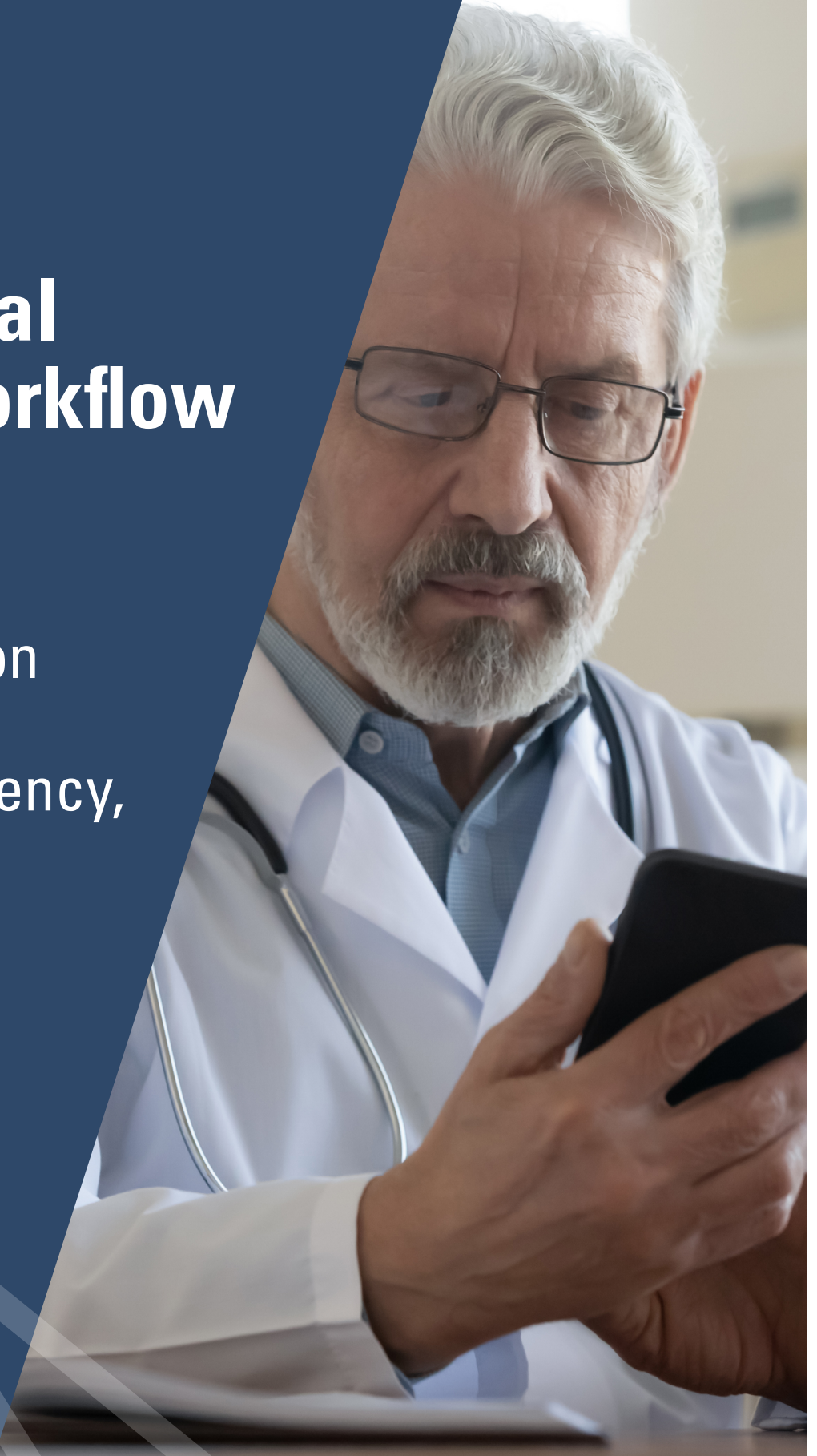




VA Medical Center Workflow Solutions

Communication
software for
mobility, efficiency,
and safety



Enabling care, safety, and efficiency in a changing healthcare technology environment

In Veteran Affairs (VA) Medical Centers around the country, a myriad of clinical, safety, and other communication systems constantly generate updates, alerts, and key pieces of information. But unless this data is gathered and delivered to the appropriate staff members on their preferred communication devices, it's useless. This is in addition to your staff's ongoing need for physicians, nurses, and other personnel to connect quickly for real conversations about how to handle patient care.

Given this vast amount of information, your organization needs effective, streamlined communications at every turn to reach caregivers at all times. Doctors go in and out of surgery and staffing assignments change around the clock. So when a patient comes to the emergency department with heart attack symptoms in the middle of the night, are you quickly gathering all the right people when the code STEMI is issued? Patients' lives depend on the coordination and management of details like this.

People and technology need to communicate flawlessly to speed response times and keep safety and satisfaction in the forefront.

Spok: Helping you lead the charge in critical communications

Spok supports more than 60 VA Medical Centers—both large and small—in their quest to deliver the highest standards of care with communication technology designed to meet today's challenges.

When Medical Centers implement call center technologies that aren't integrated, such as group paging, directory services, and on-call schedules, even fully staffed call centers are often unable to handle the volume of phone calls during peak periods. Additionally, disparate systems typically strain operators' bandwidth further, resulting in long call times and inconsistent methods of tracking on-call schedules.

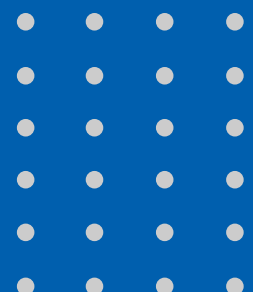
An increasing number of VA Medical Centers are choosing to use technology to improve communication for their call center activities, emergency notifications, alarm communications, and critical smartphone messaging.

We offer a full suite of integrated solutions that support VA Medical Center staff with a firm link back to the contact center and the valuable information it maintains.



Overview of our solution areas:

- Multi-function, centralized database and applications that operators can access through a single screen
- Integrated paging services, directory services, and on-call schedules
- Encrypted smartphone communications for fast, secure care coordination
- Unmatched reliability and security capabilities with JITC certification





Trends and requirements affecting VA Medical Centers today

Managing call center consolidation

One of the major trends in modern healthcare communications is consolidation of contact centers, with one location handling call answering for multiple regional facilities within the hospital family. Spok has enabled numerous VA Medical Centers to consolidate their call answering by providing the platform and experience that results in major cost savings, improved efficiency, and reduced staffing requirements.

Updating on-call schedules

The staff at many VA facilities rely on paper-based or other inefficient methods for maintaining on-call schedules. When the need arises to message a clinician by a specific role, often an outdated schedule is referenced, causing delays in critical communications. Having a tool that allows access to real-time schedule data, which also allows the user to input a message from the same interface, can significantly speed up and improve the process when seconds count.

Supporting secure, mobile communications

Staff are on the go and carry the latest smartphones, tablets, and other devices. IT teams must develop mobile device management (MDM) policies and enforce them. These should include plans for what tools are supported, encryption, how to remove sensitive information from a lost/stolen device, and managing authenticated access to web directories and on-call schedules.

Protecting information security/PHI

With increased mobility comes the increased risk of compromised protected health information (PHI). Organizations and patients benefit from proactive, documented security measures.

Improving efficiency

More than ever, staff cannot waste time looking for information, people, supplies, or open beds. Notifications must go to the correct staff members, doctors need a way to find one another for important conversations, and automated information sharing from clinical systems needs to be embraced for efficient care and interaction.

Connecting disparate healthcare systems

There are many disconnected systems in VA facilities that need to share information. These span clinical, critical test results, security, building management, electronic health records (EHRs), IT, health information, transport, and many more. An effort is underway to eliminate these islands of information by linking systems, allowing important information to pass among them.

Achieving compliance

Many regulatory bodies and laws affect VA Medical Centers, including The Joint Commission, HIPAA, and the HITECH Act. Encrypted messaging, efficient code call handling, and accurate reporting are all keys to achieving full compliance, ensuring the information is readily available for auditing purposes.

Communication-enabled workflow automation

Workflow Example 1 | Reach code teams quickly to prepare for urgent situations



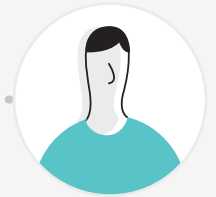
ED tests point to a heart attack.



Code sent to 20-30 staff both on and off the hospital campus so they can prepare for their role in treatment.



Staff respond with availability, and escalations are sent automatically to alternates.



Coordinated, life-saving treatment is delivered to the patient quickly.

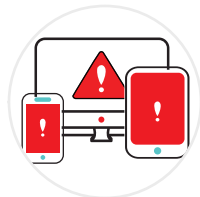
Workflow Example 2 | Sending sepsis alert to rapid-response team



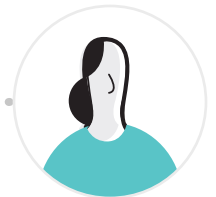
Patient vitals entered in EHR are outside normal range



Sepsis alert triggered



Alert sent to the on-call rapid response team's preferred devices

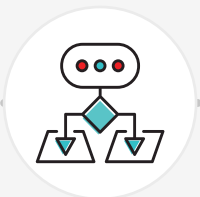


Rapid response team receives alert and is able to begin intervention right away

Workflow Example 3 | Connecting busy staff



ED physician Dr. Lee urgently needs to reach the on-call obstetrician for a pregnant patient in distress.



She calls into the system and asks for the on-call obstetrician, specifying the urgency of the call. In seconds, the system uses logic to factor in doctor contact preferences and schedules.



The call is connected quickly to Dr. Barnes on his smartphone, enabling fast, effective treatment.

Contact center solutions

Operator console

Provide operators with the information needed to process calls using their computers, with just a few keystrokes. Operators can quickly and accurately perform directory searches and code calls, as well as send messages and pages to individuals, groups, and roles.

- Simplify the call-taking process to handle higher call volumes with fewer resources
- Generate revenue by providing answering services to outside physicians or groups
- Reduce costs by centralizing call center operations

Web-based directory

Make employee contact information more accessible and enable staff to send messages quickly right from the directory. Authenticated users can log on anywhere, anytime to perform a variety of key updates to contact information and on-call schedules, search the directory, and send important messages.

- Reduce reliance on the operator group with self-service options
- Eliminate the need for costly printed directories that become quickly outdated
- Give password-protected staff access to updated contact information

Interactive speech

Spok Voice Connect™ enables your organization to process routine phone requests, including transfers, directory assistance, messaging, and paging. Interactive voice response (IVR) technology improves performance and provides intuitive, voice-based interaction without live operators and with more ease of use than touchtone menus.

- Manage greater call volumes while improving productivity and professionalism
- Enable callers to automate the paging and messaging function
- Alleviate operator workloads, allowing time for more in-depth caller inquiries
- Keep calls connecting properly with a tuning system that tracks alternate pronunciations and incorporates new names and other changes with ease
- Provide a consistent, user-friendly experience for your callers

BEFORE



Paper-based chaos

AFTER



Efficiency and consistency

Contact center recording and quality management

Record, monitor, and score your operators' conversations to improve call handling and overall customer service for patients, visitors, physicians, and other callers.

- Improve operator call handling by identifying training needs
- Enhance call quality and professionalism
- Provide an audit trail of calls to retrace conversations if organizational disputes arise

Call accounting

Log the date, time, and duration of all calls made and received by your staff.

- Ensure information is readily available for auditing purposes
- Gain accurate bill-back information and staff telephone usage
- Detect improper use of corporate resources

> More than

60

VA Medical
Centers

rely on Spok solutions
every day

Staff scheduling

Web-based on-call scheduling

Keep personnel, calendars, and on-call scheduling information updated—even with thousands of staff—using a secure web portal to maintain and allow password-protected access to the latest on-call schedules.

- Protect patients by sending messages quickly to the right on-call person directly from the schedule
- Keep personnel and scheduling information current and accurate, protecting personal time for off-duty staff
- Move ownership of on-call schedules from operators to individual departments

Staff assignment

Assign particular devices and patients to staff for the various clinical systems you link to your Spok critical alerting solution. Send updates to the right person based on his or her role and device preferences.

- Speed response time to patient requests by sending notifications to the right staff member

Preference-directed communications

Make it easier for important conversations to happen quickly and in accordance with clinicians' established preferences. Route text-based or voice messages to the intended recipient on his or her preferred device based on the urgency of a given situation. Escalate to other contacts in the event a message is not received and acknowledged in a predefined timeframe.

- Improve speed and quality of patient care
- Reduce time spent searching for clinicians and responses
- Give providers control over how others reach them



Paging services

Paging is a reliable and cost-effective communication option for a variety of roles, including those that don't require smart devices. Additionally, pagers can help ensure communication continuity in emergency situations when cellular and WiFi options can be disrupted. Spok offers both wide-area and on-site paging options, including many models for pagers.

Wide-area paging

- Spok is the industry leader in wide-area paging
- Encrypted paging options
- Unparalleled reliability for critical communications and disasters
- Proven coverage during crisis situations and natural disasters

On-site paging

- Streamline your private paging operation with a single vendor for all components across the system
- Unparalleled reliability for critical communications and disasters
- Rugged pagers designed for healthcare

Emergency notification and incident management

Quickly and reliably notify and confirm team member availability during emergency situations without calling trees and confusion. Automatically deliver messages, collect responses, escalate to others, and log all activities for reporting and analysis.

- Speed the coordination of patient care when time matters (e.g., for heart attack patients or other code calls)
- Provide dependable, accurate notification of critical information quickly
- Comply with industry mandates and guidelines (e.g., HICS, NIMS)

Enhanced 9-1-1

Many VA Medical Centers incorrectly assume that a patient or guest will dial 0 in an emergency, when they often dial 9-1-1. Direct emergency personnel to a caller's exact location (building, floor, and room) to help ensure fast response.

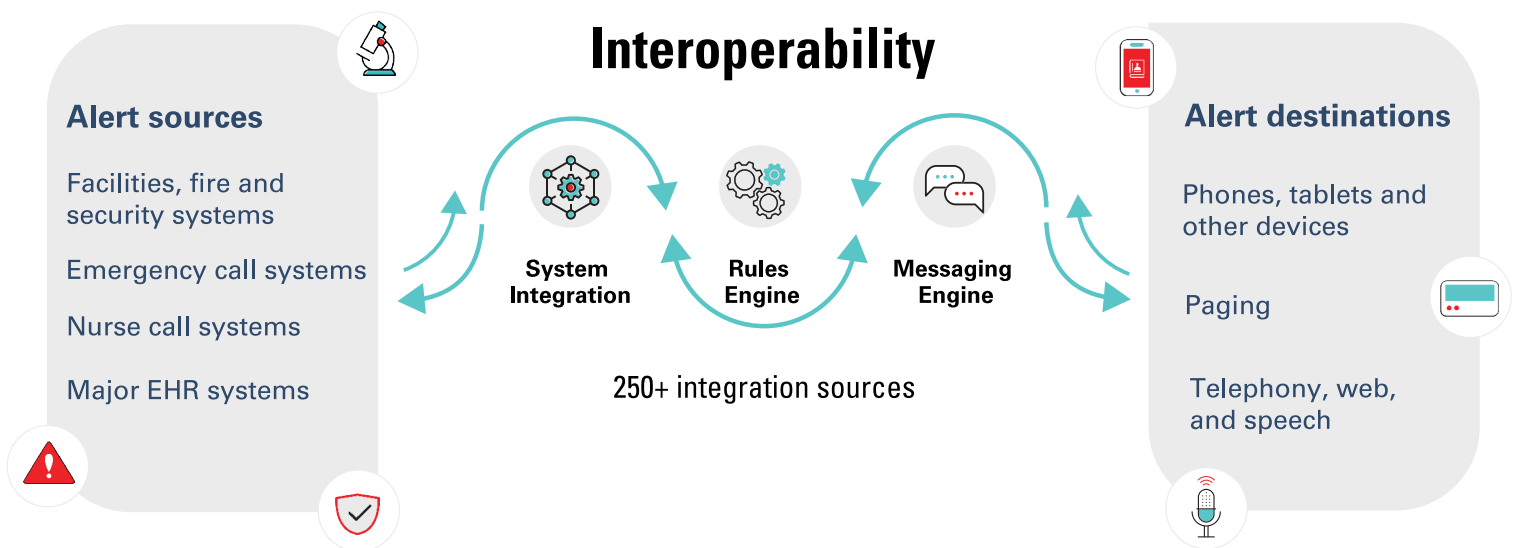
- Increase patient, staff, and visitor safety
- Get emergency personnel to the caller's exact location quickly
- Comply with state laws and limit liability



Clinical alerting

Centralize the management of critical alerts and alarms generated by point-of-care and safety systems such as nurse call, patient monitoring, and many others. Link alerts from these systems to staff's mobile devices to speed response times. This solution has achieved FDA 510(k) clearance as a class II medical device software.

- Improve patient care with faster response to requests and critical changes in vitals
- Make staff work patterns more efficient
- Reduce overhead noise and promote a quiet, healing environment
- Integrate seamlessly with over 300 hospital systems



How it all works | An example



Patient Michael is in pain and hits his nurse call.



Spok knows that Nurse Susan is assigned to Michael's room.



Nurse Susan is busy with another patient and doesn't respond to the nurse call message.



Spok escalates the message to Kathy, the on-call charge nurse, who uses the Spok Mobile® app to message Dr. Johnson.



Dr. Johnson puts in a pain medication order via the CPOE system.

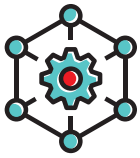
Secure messaging

Spok enables doctors and clinicians to improve many of their daily workflows with a secure messaging app that's far more than just secure texting. Spok Mobile® plugs smartphones, tablets, and Wi-Fi phones (and their users) into data, alerts, and messages not readily available on the move. Spok Mobile lets a doctor reference the on-call schedule and request a consult from the appropriate colleague. It allows a nurse to receive patient calls for assistance and determine the patient's need, without requiring a visit to the patient's room. It notifies the attending clinician when a patient monitor's threshold has been reached.

- Use a smartphone or tablet to access the organization's directory and send secure messages to any staff member, including the right on-call clinicians
- Integrate with existing third-party monitoring and alerting systems across the hospital
- Send images and videos along with text
- Create closed-loop communications with delivery confirmations and the ability to respond to or escalate messages
- Support a wide variety of smartphones, pagers, and other devices, allowing staff to use their preferred device
- Protect sensitive patient details with encrypted, traceable messaging among doctors and other staff members
- Wipe messages remotely from a lost or stolen device



What sets Spok apart?



Integrated suite

Spok offers the most comprehensive suite of enterprise critical communication solutions, and these solutions work together to support your workflows.



Workflow-driven communications

Our products are not generic call or message products. We provide solutions that drive workflows, whether that's code STEMIs or consult requests, nurse calls or care team communications.



Multi-modal

We're not just texting or paging. Our solutions include secure messaging, voice, alarms, and alerts across many modalities, so we offer you the most flexible options.



Certifications and integrations

We work extensively with all the leading providers of systems you have in your hospital today. Spok solutions are used in the most critical of environments. We certify our products with many leading vendors as well as government entities such as JITC/DOD, the FDA, and the FCC.



Enterprise directory

The directory, scheduling, and preference data at the heart of our system serves as a single source of truth across the hospital.



Industry leader

- Used by the best—each year the majority if not all of the top hospitals as ranked on the U.S. News and World Report Best Hospitals Honor Roll along with more than 60 VA Medical Centers rely on Spok for their critical communications
- Financially sound—with healthy growth and profitability



Excellent support

You have peace of mind knowing your solution will be implemented with precision and expertise, and assistance is available via web or phone once your application is live.

- Proven implementation approach helps ensure system success
- Consulting Services to maximize the ongoing value of your solutions
- 24/7/365 support via an in-house staff
- Comprehensive training options
- 97% maintenance renewal



ABOUT SPOK, INC.

Spok, Inc., a wholly owned subsidiary of Spok Holdings, Inc. (NASDAQ: SPOK), headquartered in Alexandria, Virginia, is proud to be a global leader in critical communications. We deliver clinical information to care teams when and where it matters most to improve patient outcomes. Top hospitals rely on the Spok Care Connect® platform to enhance workflows for clinicians and support administrative compliance. Our customers send over 70 million messages each month through their Spok® solutions. Spok enables smarter, faster clinical communication. For more information, visit gov.spok.com.

gov.spok.com