

**Hillrom™**Case Study:
CAROMONT HEALTH

A ONE-TIME, SYSTEM-WIDE CARE COMMUNICATIONS ADVANCEMENT

To facilitate faster, more efficient and more meaningful clinical communications throughout the CaroMont Health system, CIO Robin Lang decided to install Voalte® unified care communications platform and Voalte® mobile apps. Instead of the “walk, crawl, run” phased approach typically used for technology installations, CaroMont collaborated with Hillrom to implement a one-time, all-inclusive project where everything would go live on Day One.

By giving executive and clinical leaders, physicians and representatives from every department a voice in developing communication tools and solutions -- and by taking advantage of Hillrom's experience and expertise in large-scale implementations -- CaroMont's cross-functional project team successfully deployed its platform, three smartphone apps and a new comprehensive smartphone directory just 14 weeks after implementation began. Today, an average of nearly 1,100 users log into the communication platform each month, and the Voalte Mobile clinical communication and collaboration app has more than 2,700 active users, including 75% of CaroMont physicians.

OVERVIEW

CUSTOMER

CaroMont Health

CUSTOMER PROFILE

- An independent regional health system headquartered in Gastonia, North Carolina and anchored by CaroMont Regional Medical Center, a 435-bed not-for-profit hospital.
- The system includes a network of 52 practices that cover several specialties, primary care and urgent care as well as hospice and emergency facilities.

CARE COMMUNICATION TECHNOLOGIES

- Voalte Unified Care Communication Platform
- Voalte Mobile Applications



BACKGROUND, APPROACH AND CHALLENGES

Before the implementation, CaroMont used disparate and unconnected clinical communication technologies and tools. Workflows were complicated, and alarm fatigue was commonplace. Too often, nurses and physicians had to rely on paper-based methods to identify, find and communicate with the right person. These and other barriers impeded efficiency, delayed response times and increased the likelihood of missed communication or errors – all of which could have an adverse impact on patient care.

Three communication “silo” projects already were being considered to address three specific and urgent needs – real-time patient monitoring, a platform for streamlining call schedules with secure messaging capabilities and upgrading the nurse call system. Lang had a bigger, better and bolder idea for tackling all these needs, all at once. Her goal and strategy were simple and audacious: Leverage communication technologies to transform the delivery of care by putting it in the hands of the care teams responsible for the patient.

To realize this vision, Lang and her colleagues explored mobile technology with robust interoperability and integration tools delivered directly to caregivers’ pockets through a unified communication platform. The challenges of implementing this comprehensive, system-wide solution included:

- Understanding and meeting the various clinical and operational needs of multiple stakeholders and decision-makers across the health system
- Analyzing communication workflows and identifying opportunities to use existing and new technologies to simplify and streamline communications
- Replacing manual contact databases and the centralized alarm management command center used to notify caregivers
- Gaining physician support and buy-in to use smartphone apps and directories instead of makeshift, DIY solutions to resolve communication problems
- Ensuring that any new communication technology will not only support current clinical and IT needs but also accommodate the system’s growth and technology innovations



It is so nice to pick up the phone and always reach the doctor or teammates on the unit. Most importantly, the platform has eliminated confusion and delays and aids in safe, timely, and efficient care to our patients!"

— Lauren Gillespie, BSN, CaroMont Nurse Manager

SOLUTION

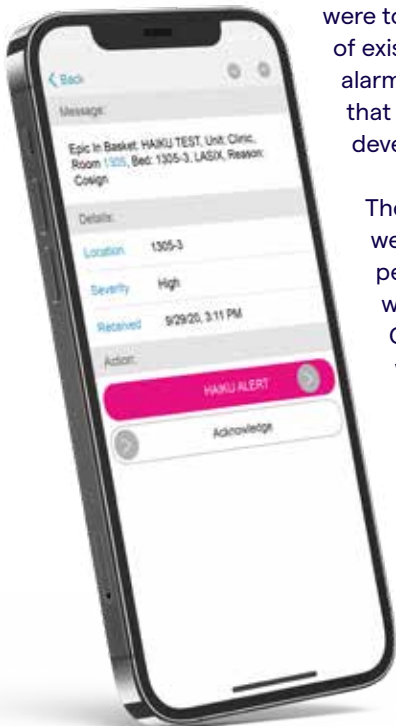
According to Lang, the unified care communications platform at the core of her systemic solution had to be:

- Seamless with multiple communication technologies working together to provide the same user experience to all members of the care team
- Interoperable between systems and data to connect an EHR app, nurse call and patient monitoring across the organization
- Secure for all communications between caregivers inside and outside the hospital when using smart phones for urgent messaging, video, text, calls and alert notifications

Based on her experiences with previous CaroMont technology implementations, Lang decided to roll out a “wildly robust” unified communication platform as a one-time, all-inclusive project that would be fully operational on Day One. To ensure this project was viewed as an organizational priority, it was included as a strategic initiative on the corporate scorecard by the Senior Leadership team. This team also included the medical leadership team of Dr. Ward Adcock and Dr. Heath High who led an intradisciplinary sub-group of the Medical Executive Committee to guide partner selection and implementation among the medical staff across the organization.

April Willis, Director of Clinical Informatics, led a cross-functional planning and execution team that included stakeholders and decision-makers from nursing, IT, medical affairs, physician practices, operations and project management. Two of its critical functions were to 1) conduct in-depth evaluations of existing clinical workflows, including alarm management, and 2) ensure that every department had a voice in developing the solutions.

The project included an intensive, week-long effort to get a better perspective on end-users’ real world needs and problems. The CaroMont team worked closely with Voalte’s clinical integration team and consultants, leveraging their experience and expertise gained from applying the Hillrom™ Voalte ADPIE (Assess, Develop, Plan, Implement, Evaluate) process used successfully in hundreds of installations.



The project team’s strategic focus on workflows and end-user needs paved the way for rapid acceptance and adoption of its new communication platform’s tools and capabilities such as:

- Enterprise-grade smartphones equipped with several applications that enable care teams to:
 - Access secure voice and text communication
 - Find each other through a searchable, comprehensive directory that includes integration with physician on-call scheduling
 - Receive alerts and view waveforms
- The inter-app capabilities of Voalte Mobile, which enable users to access EHRs, alarm notifications and on-call physician schedules without having to log into multiple apps.

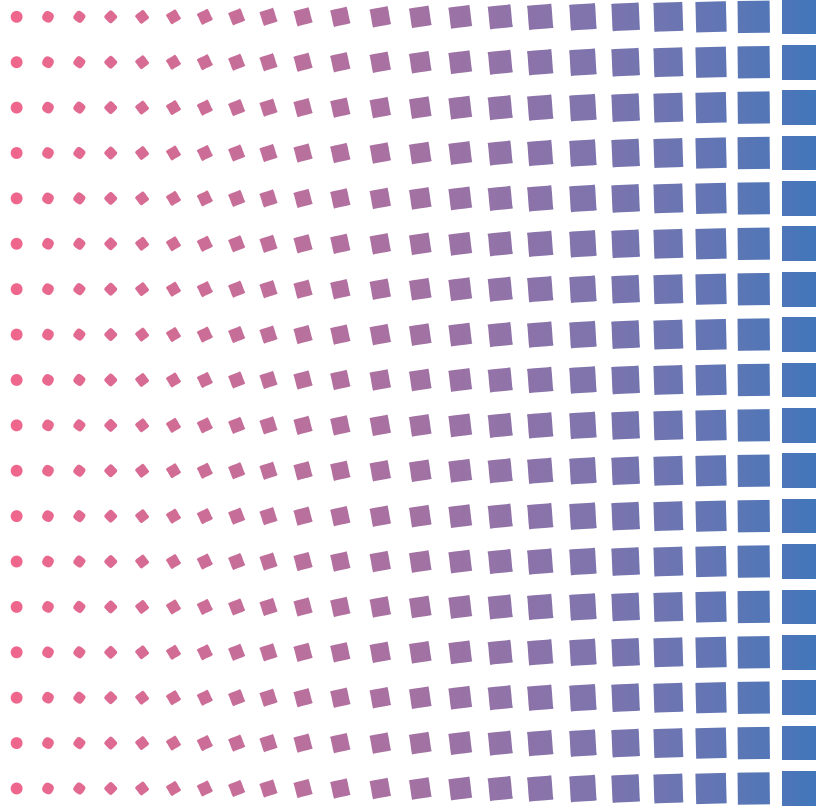
OUTCOMES

Although many technology installs of this scope can often take a year or more to complete, this implementation process took only 14 weeks. Since going live August 4, 2020, CaroMont’s unified care communications platform has helped its people, systems and devices work better together. For example:

- The medical center has **deployed more than 800 shared smartphones** with a unified directory that allows users to communicate securely across locations and shifts and quickly find who they need based on based on the caregiver’s role, name or patient.
- On average, **nearly 1,100 users log into the communication platform** each month and **sent more than 2.1 million text messages** on its app in the first half of 2021.
- **By providing direct access to the Epic Rover app**, the Voalte Mobile app has significantly increased its use for light, on-the-fly clinical documentation, barcode scanning for medicine administration and clinical picture capture. Soon after implementation (and despite its relatively small size), CaroMont became **one of the top 25% of health system users of Epic Rover**.
- The Voalte Mobile clinical communication and collaboration app has **more than 2,700 active users and is used by 75% of physicians** – an exceptionally high adoption rate.
- Since the communication solution went live, the lag time between nursing observation and **documentation capture in the EHR decreased by 80 minutes**.

KEYS TO SUCCESS

- Sharing the vision with the clinical leadership team to convert them into “believers” in the promise and possibility of technology.
- Defining workflow challenges and what value could look like “IF” you could have it all.
- Engaging and soliciting input from decision-makers and early adopters early and often.
- A collaborative, cross-functional project team comprised of key stakeholders and decision-makers who shared an “all-in-this-together” attitude.
- Integrating the communication platform with multiple systems and apps, including EHRs and on-call physician scheduling.
- Vendor partners committed to your success who work together and share project timelines and critical milestones.
- Physician commitment and hands-on involvement, which at CaroMont was led by Dr. Ward Adcock, Vice President of Medical Affairs, and Dr. Heath High, who represented physician practices.
- A willingness to embrace extensive changes, including wholly new clinical workflows, a complete refresh of technology and comprehensive training of staff.



The ability to view physiologic monitoring on our smart phones anywhere and at any time — and then immediately communicate with the patient’s care team — is a total game changer."

— Dr. Erik Shuls, Medical Director, Acute Care Service Line



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