

amtelco

White Paper

Unifying Patient Data, Directories, and On-Call Schedules for Faster Care Delivery

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Speed and accuracy are fundamental to patient care and operational efficiency. However, clinical and call center teams frequently struggle with fragmented communication, navigating disparate systems for Electronic Health Records (EHRs), directory lookups, and physician shift schedules.

[Related Case Study with State University of New York \(SUNY\) Upstate Medical University: Integrating with Epic's Electronic Medical Records](#)

By integrating EHR data and on-call schedules directly into central communications and call center platforms, healthcare organizations eliminate unnecessary system switching, reduce manual routing errors, and ensure that critical messages reach the right provider on the first attempt.



The Cost of Disconnected Information

A typical U.S. healthcare organization manages between 400 and 1,000 distinct software applications. Hospital staff and call center agents navigate a web of specialized tools every day: patient charts, scheduling portals, secure messaging applications, central directories, and alarm monitors.

[Related Case Study with Valley Health | Winchester Medical Center: Integrating On-Call Scheduling Software to Improve Patient Care by Monitoring Pain Pathways](#)

Significant operational friction occurs across departments when these tools are used in isolation. Operators and clinicians waste valuable time toggling between screens and re-authenticating across multiple applications just to locate basic contact details. Furthermore, departments often manage schedules independently using static spreadsheets, paper logs, or web portals, creating discrepancies that make identifying the active on-call provider confusing and error-prone.



We used our HL7 interface engine to filter for patient discharges that were processed through our physician computer order entry system, and then those triggers are sent to our Amtelco software, which then alerts the Environmental Services staff that there's a bed that needs to be cleaned. This has greatly improved our turnaround time for patient put-through because we are now able to automatically notify that staff versus the manual process we had before.

**Alicia Wise, Former IS Project Coordinator for
AnMed Health in Anderson, South Carolina**



When an urgent call or alert arrives, staff are forced to manually cross-reference directories and on-call schedules to determine who to notify, introducing delay into critical, possibly life-saving workflows. These disconnected channels also prevent healthcare organizations from tracking message delivery, receipt acknowledgments, and automated escalations, leaving leadership with limited audit trails and poor operational visibility.

[Related Case Study with Ephraim McDowell Health: Leveraging Directories to Improve Call Flows and Reduce Code Call Errors](#)

These delays carry real consequences. A [landmark study](#) by CRICO Strategies analyzed more than 23,000 medical malpractice cases to reveal that **communication failures were factor in over 7,000 cases (around 30 percent)**, resulting in **\$1.7 billion in total costs** and nearly **2,000 preventable deaths**.



Before Amtelco, the nurse call light would go on outside the room and alarm at the nurse desk. That meant a nurse would have to be in the hallway or at the desk to see it. Now with MergeComm we're able to send a message directly to portable devices, they can be anywhere in the facility and see if the alert is for an immediate need or if they can get there in a minute or so. It gives nurses flexibility, portability, and more efficiency in their workflow.

**Luke Barthel, IS Operations Manager for CentraCare
Rice Memorial Hospital in Willmar, Minnesota**



The [Joint Commission reports](#) that communication breakdowns are a root cause in over 60 percent of hospital sentinel events (events resulting in death or permanent severe harm). [Studies on clinical communication inefficiencies](#) show that **poor communication costs an average 500-bed hospital over \$4 million per year** in lost productivity and operational delays, contributing to an overall price tag of \$12 billion in nationwide healthcare waste annually.

[Research](#) published in the Annals of Internal Medicine and by the American Medical Association shows that physicians and nurses spend nearly **two hours on administrative tasks and EHR work for every one hour of direct patient care**.

Switching between non-integrated tools, managing multiple logins, and hunting down schedule information are leading contributors to cognitive overload and burnout.

Integrating Patient and On-Call Data



Interoperable hospital call center platforms bridge the gap between EHR systems, scheduling software, and messaging channels by absorbing live data, organizing it, and pushing it directly into the daily workflows of hospital operators and clinical staff.

[Related Case Study with Providence Swedish: Improving On-Call Communication Delays and Code Call Workflows with Web-Based Platforms](#)

How Data Moves Through the Integrated Workflow

1. **Information via HL7 Feeds:** Patient demographic and location data can flow directly from the EHR into the central communications console in real time, to automatically keep patient information updated.
2. **Consolidated On-Call Scheduling:** On-call schedules from various departmental tools can be managed by a single, interoperable system. Updates made by departments reflect instantly across all connected communication channels.
3. **EHR Context:** Clinicians working with EHRs can also view live on-call roster information.
4. **Intelligent Alert Routing:** Inbound calls, patient updates, or critical notifications trigger automated routing logic that cross-references current duty status and contact preferences.
5. **Secure, Multi-Channel Message Delivery:** Notifications are dispatched immediately to the appropriate destination with delivery tracking and automated escalation rules.

This unified flow of information delivers targeted operational benefits to every group across the enterprise. Contact center teams use a single interface that automatically displays current patient details and active on-call personnel, eliminating manual cross-referencing, shortening average call-handling times, and significantly reducing operator stress. Clinical staff receive accurate communications with full patient context on the first attempt, leading to fewer delays in consultations, admissions, and emergency responses. Finally, IT and systems integration leaders leverage

standard HL7 interfaces to maximize the return on existing software investments while gaining centralized logging and robust audit trails for compliance and performance analytics.

Related Case Study with NorthBay Health: [Addressing Pain Points with Upgraded Call Center Software](#)

By bringing patient data, directories, and schedules into a single cohesive ecosystem, healthcare organizations can reliably route communications using live, synchronized data. Eliminating double entry and constant app toggling supports faster responses by drastically reducing the manual steps between an inbound event and final delivery, all while maintaining full visibility over delivery tracking, acknowledgments, and escalations.



We are now able to use just the Amtelco Portal app to integrate and update the third-party vendor schedules. No one has to manage two or three different schedules or manually input shifts into different scheduling platforms. The app is easy for operators and hospital staff to use.

Monica Belo, Sr. Systems Analyst, Revenue Cycle Applications for NorthBay Health, in Solano County, California



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