CASE STUDY

Strategic Communications Modernization

Executive Lead: Ricardo Casanova · Client: Alberta Health Services · Stakeholders: TELUS, BlackBerry, Onset, Citipage

COMPLEXITY AT A GLANCE

- **The Legacy:** A fragmented network of nine newly consolidated health regions running on disparate paging networks.
- **The Crisis:** Critical provincial healthcare workflows reliant on a vendor ecosystem where some vendors were insolvent. In some cases maintaining the failing paging infrastructure literally required (allegedly) sourcing spare parts on eBay.
- **The Reality:** Physical hospital architecture and subterranean basements created permanent cellular dead zones. Low-frequency legacy paging remained a physical necessity, presenting a barrier to implementing a unified, modern communication infrastructure.

KEY STAKEHOLDERS

TELUS: Network carrier, enterprise sponsor, and ultimate beneficiary of the mobile fleet expansion.

BlackBerry / BES: Secure mobile endpoint infrastructure and device partner.

Onset Technology: Core middleware layer handling protocol translation and automated escalation workflows.

Citipage Ltd.: Local paging partner and TELUS dealer network that commercialized the solution.

Alberta Health Services (AHS): The newly unified provincial health authority serving millions.

PROJECT PROFILE

- **Classification:** Mission-Critical Public Sector Infrastructure
- **Engagement Footprint:** Provincial (Multi-Site / Multi-Region)
- **Industry Vertical:** Healthcare Operations & Telecommunications
- **Solution Type:** Hybrid Enterprise Architecture & Strategic Account Penetration
- **Engagement Phase:** Initial Concept through Full-Scale Production Rollout

EXECUTIVE SUMMARY

Following the historic, province-wide consolidation of regional health authorities into Alberta Health Services (AHS), creating one of the largest unified healthcare systems in North America, Ricardo Casanova led the strategy, partnership development, funding, and deployment of a next-generation provincial healthcare communications platform.

The initiative addressed a complex operational risk: a highly fragmented communication network operating across disparate regional systems, which included legacy infrastructure dependent on insolvent hardware providers. Compounding the challenge, physical hospital architecture and subterranean facilities created permanent cellular dead zones, making an outright rip-and-replace operationally impossible. While localized, low-frequency signal penetration remained necessary for baseline facility workflows, high-priority clinical workflows required a modern, secure, and unified solution.

By architecting a hybrid middleware strategy, Ricardo bridged this legacy ecosystem with modern enterprise mobility infrastructure. This dual-path approach delivered a functional failsafe for critical clinical workflows, accommodated legacy infrastructure realities by allowing old and new platforms to operate simultaneously, and established the baseline architectural credibility that positioned TELUS to successfully secure subsequent large-scale public sector opportunities.

THE CHALLENGE: FRAGMENTED, HIGH-RISK INFRASTRUCTURE

With the creation of AHS, standard IT infrastructure (servers, networks, desktops) could be consolidated through conventional practices. Paging systems, however, presented a unique, high-risk challenge. Healthcare operations depended entirely on these legacy systems for urgent, life-saving communications, yet the environment was plagued by three critical vectors of constraint:

- **Severe Infrastructure Fragility & EOL Ecosystems:** The provincial paging baseline was built on a patchwork of legacy hardware, with the largest regional networks reliant on an insolvent vendor (Glenayre). Because official commercial support was completely dead for these critical hubs, the infrastructure was highly unstable, creating an immediate, systemic vulnerability across major acute care environments.
- **Massive Regional Fragmentation:** Across the nine newly consolidated health authorities, communications were entirely decentralized. Major metros like Calgary and Edmonton operated completely independent paging networks, while rural regions relied on a patchwork of disparate, incompatible third-party vendors with limited cross-province interoperability.
- **Immovable Environmental & Safety Mandates:** Deep concrete hospital basements created permanent cellular dead zones where low-frequency pagers were the only technology that worked. Furthermore, significant cohorts of senior medical staff had used pagers for decades and resisted changing their habits.

Because an abrupt "rip-and-replace" approach would cause both technical failure in cellular dead zones and immense cultural pushback from clinicians, a mandatory technology cutover was impossible. The system needed a built-in insurance policy.

SOLUTION DESIGN & ARCHITECTURE

Recognizing that physical infrastructure replacement and forced user migration introduced unacceptable risks, Ricardo designed a hybrid communications strategy focused on abstraction and coexistence rather than disruption. He sourced, evaluated, and secured a strategic partnership with Onset Technology and Citipage, utilizing their combined platform as a translation layer.

The architecture was engineered to split the communication path at the middleware layer, creating an automated dual-delivery mechanism that required zero changes to legacy clinician habits:

CORE COMPETENCIES DEMONSTRATED

- Risk-Mitigated Enterprise Solution Architecture
- Strategic Ecosystem Alignment & Partner Integration
- Public Sector Governance & Regulatory Compliance Navigation
- Multi-Stakeholder Commercialization & Margin Expansion
- High-Stakes Account Penetration & Market Disruption

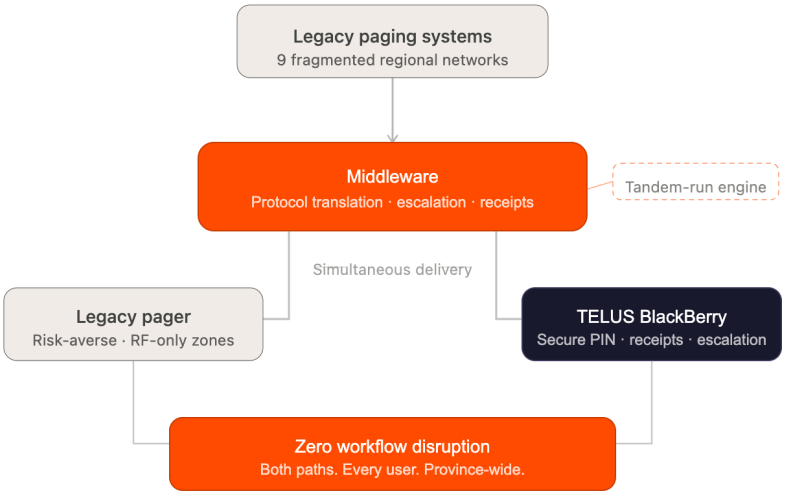
CROSS-SEGMENT VALIDATION

"We returned a number of pagers in favor of the new BlackBerry smartphones... with a 'Pager in a BlackBerry', our priority messages are received immediately and not lost in the clutter... and our senior officers have one less device to carry on their belts."

- Terry Owen, Chief of Emergency Systems, Edmonton Fire Rescue Services

KEY TAKEAWAY

Cross-Segment Growth
By engineering a project that protected critical emergency workflows while establishing a lucrative commercial model, it maximized revenues and mobile endpoint adoption across both healthcare and broader public safety segments.



By routing traditional paging workflows through this intelligent middleware layer, the system executed two actions simultaneously: it triggered the Citipage network to deliver the standard page, while instantly integrating with AHS's internal BlackBerry Enterprise Server (BES) to dispatch a secure, encrypted PIN message. Securing this direct integration required navigating rigorous enterprise info-sec protocols to establish a trusted connection between the middleware platform and the core provincial health network.

KEY CAPABILITIES DELIVERED

- **Secure Mobile Delivery:** Translated traditional paging traffic into secure BlackBerry PIN messages delivered directly to mobile devices, meeting clinical and acute care requirements.
- **Accountability & Tracing:** Introduced real-time delivery confirmation, message read receipts, and automated escalation workflows for unread critical alerts.
- **Functional Safety Net:** Processed messaging workflows through a middleware layer that delivered pages to legacy devices and TELUS BlackBerry endpoints simultaneously. This established the new mobile infrastructure as an active safety net, ensuring clinical communications remained live even if the legacy network failed.

RICARDO'S ROLE: PRIMARY ARCHITECT & BUSINESS LEAD

Operating at the intersection of business development, product strategy, and enterprise execution, Ricardo drove this initiative from initial concept to provincial deployment:

- **Strategy, Architecture & Risk Case Engineering:** Designed the hybrid middleware-to-mobility technical architecture to solve acute legacy infrastructure limitations, and authored the business case that secured funding by demonstrating the critical need to mitigate systemic operational liability across the newly unified health authority.
- **Ecosystem & Stakeholder Orchestration:** Navigated complex public sector governance engaging with Chief Medical Officers and Infectious Disease specialists, while simultaneously aligning a diverse commercial network of internal business units, global technology partners, and localized suppliers.
- **Endpoint & Revenue Acceleration:** Structured the solution specifically to unlock large-scale device deployment, leveraging the risk-mitigation platform to successfully transition AHS onto the TELUS network and drive high-volume BlackBerry endpoint adoption across the province.

BUSINESS IMPACT & OUTCOMES

The initiative stabilized a critical public safety vulnerability for the province while directly driving high-volume endpoint adoption and long-term commercial success for partners:

- **Provincial Risk Mitigation (The Client Win):** Eliminated the immediate threat of a systemic communication failure, resolving severe operational liability and providing a modern workflow for the health authority.
- **ARPU & Margin Expansion (The Carrier/Dealer Win):** Enabled the local paging partner and dealer network to systematically migrate low-margin legacy paging accounts into high-value mobile service contracts increasing monthly service revenue while unlocking lucrative device acquisition commissions.
- **Strategic Cross-Segment Replication (TELUS Win):** Proved TELUS infrastructure could bridge legacy systems, creating a repeatable blueprint that successfully expanded the solution from healthcare into municipal emergency services and first responders.