

The Power of Coexistence:

Securing the Future of P25 Public Safety Communications in Brazil, Chile and Latin America

Executive Imperatives

Public safety agencies across Brazil, Chile and Latin America more broadly are operating in an environment defined by two realities: accelerating digital transformation and growing operational complexity. Law enforcement agencies manage denser urban environments. Fire and rescue services respond faster across industrial corridors and climate-linked incidents. Emergency Medical Services coordinate lifesaving action across congested urban centers and remote communities where clarity of communication directly affects outcomes.

For executive decision-makers, this is not about choosing between the proven resilience of P25 Land Mobile Radio and the intelligence-rich capabilities of broadband. The best strategy is to preserve trusted mission-critical voice while extending operations with broadband-enabled applications, data, video, and emerging intelligence.

This is the power of coexistence. It represents a modernization model built around operational reality. You protect the communications layer you already trust, and you extend it with technologies that improve situational awareness, speed, mobility, and decision-making.

Motorola Solutions supports this model through APX NEXT, a next-generation smart radio platform that combines mission-critical voice with broadband-enabled data applications. It also includes SmartConnect, an intelligent routing service that automatically maintains voice and data continuity by switching to available broadband networks when LMR coverage is challenged, along with a suite of Smart Applications purpose-built for public safety.

You do not need to choose between trusted voice and digital modernization. Our ecosystem of technologies empowers you to embrace both for a proactive approach to safety.



Why P25 Coexistence Matters Now

The Landscape: LATAM in 2026

A Region Advancing Faster Digitally Than Operationally

Across Latin America, governments, industries, and citizens are embracing more connected ways of working. Broadband network expansion, mobile-first digital behavior, cloud adoption, and data-rich applications are reshaping the broader operating environment. For public safety agencies, this creates both opportunity and pressure.

Expectations are rising for faster information sharing, improved field visibility, more mobile intelligence, and stronger coordination across agencies and jurisdictions.

Yet public safety modernization does not happen on a blank slate. It happens inside legacy infrastructure environments, mixed levels of digital maturity, uneven cybersecurity readiness, and highly variable network conditions. This creates a central tension for public safety leaders: how to adopt the advantages of a more digital operating environment without weakening the reliability, continuity, and control that emergency communications require.

Brazil: Scale, Digital Acceleration, and Elevated Risk

Brazil sits at the center of this tension. It is one of Latin America's leading broadband markets, and that momentum creates real opportunities for public safety agencies to benefit from higher-bandwidth capabilities such as body-worn video, secure mobile, mapping, location intelligence, and connected field applications.

But Brazil's scale also magnifies complexity. Public safety agencies operate across dense urban centers, large industrial corridors, border regions, agricultural zones, coastal areas, and remote interior environments. Communications strategies that appear viable in one geography may prove insufficient in another. A model that depends too heavily on uniform commercial coverage is difficult to sustain across a country of continental dimensions.

Brazil also faces significant cyber pressure. Brazil accounts for roughly 30% of tracked ransomware and extortion attacks in Latin America, compared with 14% for Mexico and 13% for Argentina. More broadly, Latin America has recorded some of the world's fastest growth in disclosed

cyber incidents, with reported activity increasing at an average annual rate of about 25% over the past decade. For public safety agencies, that matters because cyber risk is not confined to enterprise IT. It can directly affect operational continuity, delay coordination, reduce interoperability, and compromise command awareness at precisely the moments when communications reliability matters most.

With regional cyber incidents

increasing by 25%

annually, purposeful resilience is our shared priority. Your communications must remain secure and continuous.

Chile: Digital Maturity, Stronger Infrastructure, and Persistent Vulnerability

Chile offers a different but equally important signal for the region. It is widely recognized as one of Latin America's more digitally mature markets and can be seen as an indicator of where public safety operating environments across the region are heading. Chile ranks 25th globally on the National Cyber Security Index with a score of 85, achieving 100% fulfillment in both cybersecurity policy and critical information infrastructure categories. Its Cybersecurity Framework Law came into effect on January 1, 2025, establishing the National Cybersecurity Agency.

Chile also demonstrates the scale of the region's digital acceleration. The country has approximately 94% internet penetration and 30.7 million active cellular mobile connections, equal to roughly 155% of its population. By October 2024, Chile had recorded approximately 5.2 million advanced mobile connections.





Yet stronger connectivity does not eliminate operational risk. Chile reportedly experienced 27.6 billion cyberattack attempts in 2024, representing a 360% increase from 2023. The lesson for public safety leaders is clear: greater digital maturity expands capability, but it also broadens the attack surface and raises the operational cost of disruption.

Connectivity Asymmetry Across the Region

One of the defining characteristics of Latin America's public safety environment is asymmetry. Major urban centers such as São Paulo, Rio de Janeiro, and Santiago may benefit from growing high-speed broadband availability and stronger digital density. But that reality does not extend evenly across the full operating environment.

Border zones, mountainous terrain, river corridors, remote communities, agricultural regions, and Amazonian areas often depend on mixed-access strategies, variable carrier performance, or limited infrastructure. For public safety agencies, this creates a basic planning reality: a single-network modernization model is unlikely to perform consistently across the full mission footprint.

“Modernization must strengthen resilience, not compromise it.”

This asymmetry also has a confidence dimension. In Latin America, 42% of respondents say they are not confident in their country's preparedness for cyber incidents affecting critical infrastructure, while only 4% say they are very confident. For public safety leaders, that broader sentiment matters because communications strategy does not exist in isolation. It sits inside a wider environment of public-sector digital dependence, infrastructure risk, and uneven resilience.

Rising Expectations for Data, Intelligence, and Response Speed

The public safety mission itself is evolving. Agencies are under growing pressure to incorporate richer data, video, real-time location awareness, AI-assisted analysis, connected applications, and drone-enabled situational awareness into frontline workflows. These tools can improve response quality, decision speed, and operational visibility.

The wider market signal is clear. In Latin America, 88% of AI-native founders rank accuracy among their top three priorities, while 76% rank cost among their top three, and only 22% rank privacy among their top three considerations. In Chile, 78% of companies have already integrated AI or are exploring implementation. These are not public safety-specific metrics, but they illustrate the digital direction of travel in the surrounding environment. Public safety agencies are increasingly expected to operate within that environment while holding themselves to a higher standard of resilience, trust, and continuity.

The Strategic Implication for Public Safety Leaders

Taken together, these dynamics point to a clear conclusion. Latin America's public safety agencies are modernizing inside an environment of simultaneous progress and constraint. They face growing pressure to adopt digital capabilities, yet they must do so in a region marked by cyber risk, coverage variability, infrastructure inconsistency, and complex geography.

That is why the central modernization challenge is not whether to embrace broadband-enabled innovation. It is how to do so without exposing agencies to fragility, loss of control, or avoidable operational dependence. The most credible answer is a model that combines trusted mission-critical voice with the growing advantages of broadband-enabled data and intelligence.



Why P25 Remains the Gold Standard for Mission-Critical Voice

P25 remains the benchmark for mission-critical voice not because agencies are resistant to change, but because it continues to deliver the characteristics public safety operations depend on most.

Across law enforcement, fire, and EMS, voice remains the decisive coordination layer in moments where seconds matter and ambiguity creates risk. P25 continues to be foundational because it offers capabilities broadband alone still does not replicate with the same certainty under public safety conditions:



Instant one-to-many group communications



Direct mode / talk-around for unit-to-unit continuity when network access is unavailable



Emergency alerting and prioritization built around public safety operations



Operational control over the communications environment

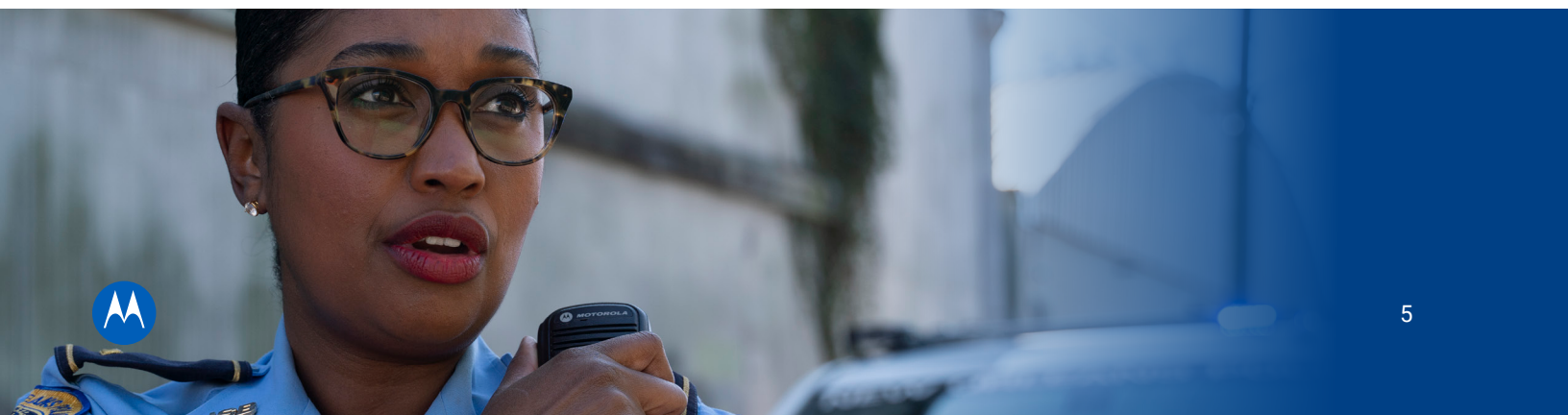


Hardened, engineered resilience with power backup and survivability expectations aligned to critical missions



Known behavior under stress during disasters, major incidents, and degraded conditions

From a strategic perspective, continued investment in P25 is rational. It protects an agency's most trusted voice asset while preserving control, continuity, and operational independence. Broadband is expanding rapidly and is highly valuable, but in public safety it is being adopted as a force multiplier for data, AI-assisted awareness, and operational intelligence, not as a simple replacement for assured mission-critical voice.





Why Broadband Alone Is Not Enough for P25 Public Safety Operations

Broadband is essential to the future of public safety. It expands what agencies can see, share, and coordinate in the field. It supports richer workflows around mapping, secure, video, location awareness, connected intelligence, and increasingly sophisticated analytics. But broadband-only is not, on its own, the most resilient strategy for mission-critical communications.

Exclusive dependence on commercial LTE or broadband models managed by commercial service providers can introduce significant operational risks that stem from the consumer-focused delivery networks, rather than the technology itself:

→ Congestion risk

Commercial public networks can become saturated precisely when incident pressure peaks, including during major events, protests, or natural disasters.

→ Dependency risk

Agencies remain dependent on external commercial providers, their coverage design decisions, and third-party restoration priorities.

→ Coverage inconsistency

Commercial carrier performance varies across dense urban, indoor, industrial, peri-urban, rural, and remote environments.

→ Cyber exposure

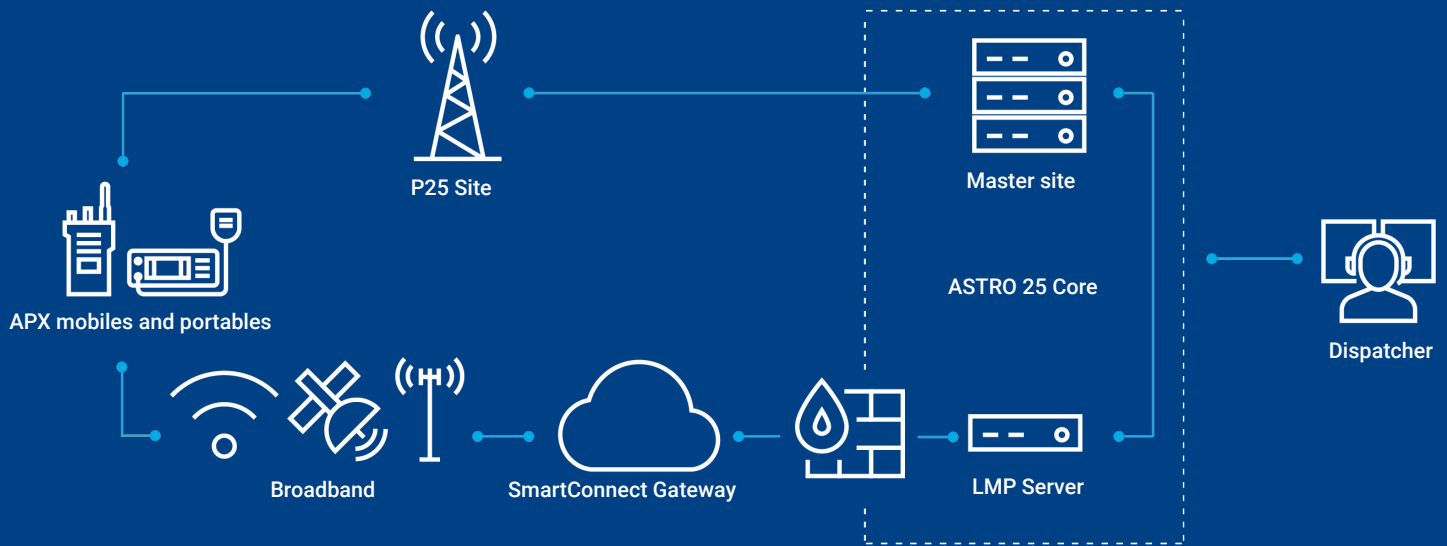
As consumer digital services proliferate, attack surfaces expand. Agencies need continuity even when adjacent commercial service provider systems are disrupted or compromised.

→ Mission mismatch

Commercial broadband networks are designed for scale and general service delivery. Public safety communications are designed for continuity, command, and consequence-heavy environments.

That distinction matters in Brazil, Chile, and the broader Latin American market, where operational conditions vary widely and communications strategies must perform across both routine demand and high-stakes disruption.





Why P25 and Broadband Coexistence Wins

The strongest modernization strategies are built on coexistence because coexistence reflects how public safety actually operates.

P25 provides the trusted mission-critical voice layer. Broadband extends that environment with richer data, location awareness, secure messaging, video, mapping, drone-enabled intelligence, AI-assisted analysis, and broader operational visibility. Together, they create a more complete and more resilient model for frontline communications.

This matters because public safety modernization is no longer only about talking. It is about seeing, locating, validating, predicting, sharing, and coordinating in real time. Agencies increasingly need to move voice and data together without compromising the communications backbone responders depend on most.

That is where Motorola Solutions creates meaningful differentiation. Through SmartConnect, both voice and data can be transmitted over broadband when responders move beyond P25 coverage. This is not simply a fallback voice path. It is a way to extend the operational environment itself, allowing personnel to maintain communications continuity while still benefiting from the data services that support command visibility, situational awareness, and faster decisions in the field.

From a public safety perspective, that value is significant. It means responders do not have to manually switch networks in the middle of an incident. It means agencies can extend the value of their P25 systems into environments where traditional radio coverage may be limited. And it means field teams can continue operating with a more connected experience, rather than losing access to critical communications and information the moment they move beyond the edge of the network.

Coexistence wins because it embraces the “power of AND”. By combining the strengths of a trusted P25 voice platform with a digital, broadband-forward future, agencies unlock a ‘better together’ approach. With the right architecture, they achieve both uncompromised resilience and continuous modernization.



“ Public safety leaders do not need a theory of transformation disconnected from operational reality. They need a model that respects existing investments, preserves continuity, and supports practical adoption of new capabilities over time.



Built on Mission-Critical Experience

Trust matters in public safety modernization. Agencies are not simply evaluating features. They are evaluating dependability, interoperability experience, long-term support credibility, and a partner's understanding of mission-critical operations.

Motorola Solutions has a long history of supporting public safety agencies across Latin America with mission-critical communications infrastructure and operational technologies. That legacy matters not as a brand story, but as evidence of continuity, field understanding, and long-term commitment to the environments in which public safety agencies operate.

This experience also shapes how modernization should be approached. Public safety leaders do not need a theory of transformation disconnected from operational reality. They need a model that respects existing investments, preserves continuity, and supports practical adoption of new capabilities over time.





Why Motorola Solutions Leads in P25 Over Broadband

Motorola Solutions is uniquely positioned to deliver true P25 over broadband.

That distinction matters. While other providers may offer generic push-to-talk over cellular applications, Motorola Solutions extends the P25 experience agencies already know and trust. With SmartConnect, when a responder steps outside P25 coverage, both mission-critical voice and associated operational data can be transmitted over an available broadband connection. This helps preserve continuity across the incident without disrupting the user experience.

Crucially, responders retain core P25 features, including end-to-end encryption, emergency alarms, PTT ID, and talkgroups. The transition occurs automatically and without user intervention, helping personnel remain focused on the mission rather than managing networks or devices.

This is a critical differentiator for public safety. It means agencies are not simply maintaining a backup voice path. They are extending a fuller operational environment.

Responders can continue to communicate while also benefiting from broadband-enabled data services that support coordination, situational awareness, AI-informed workflows, and faster, better-informed decisions in the field.

To maximize this unified connection, APX NEXT brings together trusted P25 communications with a suite of purpose-built Smart Applications that enhance how teams operate in the field:

→ SmartLocate

Tracks responder locations at high cadences over broadband, helping command centers maintain a more current operating picture without burdening the P25 voice network.

→ SmartMapping

Displays an interactive, real-time map on the radio screen, allowing users to visualize nearby units and active incidents more intuitively.

→ SmartProgramming

Updates radio fleets over the air via broadband in minutes, reducing downtime and helping keep responders in the field.

Together, APX NEXT, SmartConnect, and Smart Applications create a differentiated coexistence model: one that extends not just P25 voice, but the broader communications and information environment public safety agencies need to operate effectively.

For public safety leaders in Brazil, Chile and the broader LATAM, that differentiation is significant. It means modernization can happen in a way that is operationally seamless, security-conscious, and grounded in the realities of frontline response.





Use Case in Action

Law Enforcement Scenario:

Coordinating Fast-Moving Public Incidents in Congested Urban Environments

At a major public gathering in Rio de Janeiro or Santiago, incident conditions can shift quickly while commercial networks come under strain from heavy public demand.

Command teams need to coordinate units, monitor developments, and respond to emerging threats without losing control of the operational picture. In these environments, trusted P25 voice remains essential for immediate coordination, but responders also need a faster, more discreet way to access and share evolving information.

APX NEXT adds value by helping officers operate with both communications continuity and better situational awareness in the same device experience. SmartMapping helps officers and command staff visualize incident geography and nearby units more clearly. SmartLocate improves visibility into personnel positioning during fluid operations such as crowd management, perimeter security, and coordinated response.

Outcome:

A more informed and more agile response: officers can stay connected to trusted voice communications while gaining the visibility and operational context needed to make faster decisions in dynamic urban incidents.





Use Case in Action

Fire and Rescue Scenario:

Maintaining Team Visibility Across Hazardous, Expanding Incident Zones

During wildfire response, industrial incidents, floods, or severe weather events, fire and rescue teams often operate across broad, dangerous, and fast-changing environments. In these conditions, the challenge is not only maintaining dependable communications, but also improving awareness of crew location, incident spread, and resource positioning as the situation evolves.

APX NEXT helps translate coexistence into practical field value by pairing trusted mission-critical voice with tools that support stronger accountability and better awareness across the incident footprint. SmartLocate can help incident command maintain a clearer view of team positions across dispersed operations. SmartMapping provides additional spatial context that supports movement, coordination, and safer deployment decisions. SmartProgramming adds value by enabling updates over broadband, reducing downtime and helping agencies keep radios current without unnecessarily taking devices out of service.

Outcome:

Stronger command visibility and safer coordination across complex scenes—helping fire and rescue leaders maintain operational control while improving how crews move, respond, and stay connected under pressure.





Use Case in Action

EMS Scenario:

Sustaining Coordination and Continuity While in Motion

For EMS teams, response effectiveness depends on mobility, timing, and uninterrupted coordination. Crews must stay connected while navigating congested roads, changing scenes, and inconsistent coverage conditions, all while coordinating with dispatch and the broader emergency response network. In these moments, delays in communication can quickly affect triage, routing, and handoff efficiency.

APX NEXT supports a more connected EMS workflow by helping responders maintain trusted communications while also accessing broadband-enabled tools that improve coordination on the move. SmartConnect helps extend communications continuity as units move beyond traditional coverage boundaries.

Outcome:

A more responsive and more continuous care pathway—helping EMS teams stay aligned with dispatch, maintain situational clarity while mobile, and act faster from initial response through arrival and transfer.



Path to 2030:

Preparing for the Next Phase of Public Safety Modernization

The next phase of public safety modernization in Brazil, Chile and Latin America will likely be shaped by a broader mix of technologies: expanded broadband networks, more private and hybrid network environments, satellite-supported connectivity, richer field applications, AI-assisted workflows, drone-enabled intelligence, and more advanced data use in command environments.

What is clear from the market is not that one device or platform will suddenly redefine public safety communications, but that agencies will need stronger integration between trusted voice systems and expanding digital capabilities.

A grounded view of the future suggests:

2026–2027: Operational Integration

The near-term priority is improving interoperability between trusted P25 environments and expanding broadband use cases. Agencies focus on continuity, coverage extension, smarter field workflows, and more efficient use of location, mapping, video, and application-based awareness.

2028–2030: Broader Data-Led Operations

As broadband ecosystems mature and operational tools become more integrated, agencies may be in a stronger position to use aggregated data from field applications, location systems, cameras, drones, and AI-enabled analytics to improve situational awareness, planning, and command decision-making. This should be understood as a market direction and operational opportunity, not as a guaranteed device-specific evolution. That distinction is important.

Public safety leaders need strategy grounded in what can be supported today, while preparing their architecture for the capabilities that are most likely to matter tomorrow.





Recommended Next Steps

→ Adopt broadband where it adds clear operational value

Extend capability through applications such as location, mapping, connected field intelligence, AI-assisted workflows, and drone-enabled awareness.

→ Plan around the “power of AND”

Build architectures that recognize Brazil’s and Latin America’s operational realities. Whether your agency’s roadmap is LMR-forward, broadband-forward, or a balanced hybrid of both, choose a modernization path that layers these capabilities seamlessly rather than forcing a replacement.

→ Modernize with cyber resilience in mind

In the region’s current threat environment, public safety communications strategy must account for digital maturity gaps and the real operational consequences of cyber disruption.

→ Prioritize platforms that extend trusted P25 environments

Look for modernization approaches that preserve and extend existing P25 investments while seamlessly layering on newer digital capabilities, maximizing your operational reach.



Conclusion

Public safety agencies in Brazil, Chile and Latin America more broadly, can seamlessly achieve both trusted communications and digital modernization.

For public safety leaders, the most credible path forward embraces the “power of AND”, maintaining the communications standard that remains trusted for mission-critical voice, while expanding into broadband-enabled intelligence, applications, AI-assisted workflows, drone-enabled awareness, and more connected operational response.

In a region shaped by uneven infrastructure, cyber risk, growing digital dependence, and complex operational geography, coexistence is not a temporary step. It is the architecture of resilient modernization.

Motorola Solutions is uniquely positioned to support that path through APX NEXT, SmartConnect, Smart Applications, and the industry’s true P25 over broadband capability. Together, these capabilities help agencies modernize with confidence, extend the value of existing communications investments, and build a more resilient operational future.

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