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The AI-driven Proactive Care: Redefining Device and Service Management at Scale

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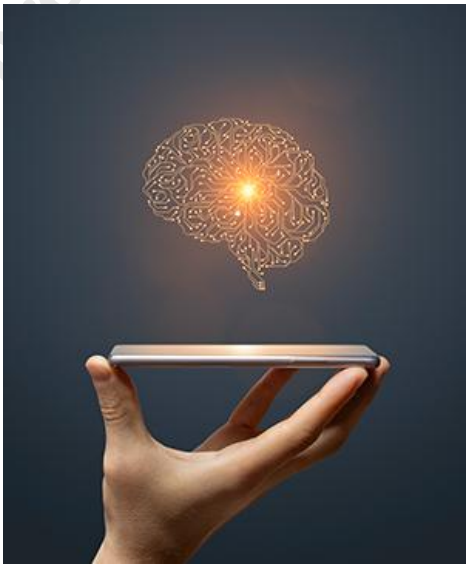

Communications service providers (CSPs) today operate in an environment marked by explosive device connectivity growth, rising customer expectations, and constant pressure to deliver seamless service.

Against this backdrop, operators are also navigating growing commercial pressures. With ARPU stagnating and subscription growth slowing, the traditional levers of network investment are no longer enough to sustain differentiation. Even as coverage expands and throughput improves, the competitive edge is shifting. Speed alone no longer differentiates operators; value-added services and customer experience do.

The complexity of a constantly evolving competitive landscape is reshaping the economics, operations, and expectations of modern service delivery. As competition consolidates, intensifies, and customer expectations rise, the shift from reactive care to proactive engagement that transforms the customer experience quality, increasing operational efficiency, and driving loyalty, is existentially essential.

Rising expectations are reshaping customer care

Customers judge operators critically by whether their services work seamlessly across an expanding landscape of device types, different access techniques, locations, and interaction channels, with zero tolerance for disruption. A dropped call, an intermittent WiFi signal, or a failed device entitlement is no longer "one of those things"; it's a rupture in the trust bond.

Crucially, customer experience is no longer determined by the core network alone; it is increasingly defined at the edge, across the multi-device environments end-users rely on every day, from home networks to workplaces, and public spaces.

In these environments, complexity arising from interference, malicious behaviors, misconfiguration, and device density can undermine even a perfectly performing access network. This means many issues customers perceive as "network problems" actually stem from apps, identity layers, or device settings and decisions; domains that operators traditionally have not monitored.

As these edge-driven issues multiply, the limitations of traditional care models become impossible to ignore. Traditional support models, rooted in ticketing queues, post-incident diagnostics, and manual intervention, simply weren't designed for a world where the number of connected devices even within a single household can swell from a handful to dozens.

Approaches that depend on customers or agents noticing and reporting symptoms inevitably create delays, frustration, and rising operational load.

To stay competitive, operators must adopt a broader definition of customer experience. One that includes integrating these edge environments, device intelligence, service policies, and the digital channels customers use daily. In this model, consistency matters as much as speed, and preventing disruption becomes just as crucial as resolving it.

The new standard is an experience where problems are anticipated and removed before they surface, and correspondingly, the edge environment performs as reliably as the core.

Device and service management is now a CX function

When the customer experience is defined by what happens on the device and across the customer's digital journey, deep visibility and control at the device and service access layers become frontline CX capabilities. This now converges both fixed and mobile environments, where experience is shaped not only by WiFi, mesh, and in-home conditions, but also by radio behavior, cell and RAT handovers, roaming policies, and device-specific performance under load, all of which can degrade service even when the core network is performing as expected.

To resolve issues proactively, operators must have visibility in full context: the particular device, running which firmware version, in which environment, at what time, using which application, and so on. For mobile users, they also need to be aware of whether voice, data, or messaging entitlements (e.g. VoLTE/VoNR, RCS, 5G Slicing) are properly activated; whether eSIM/iSIM provisioning has completed; and whether APN and/or IMS settings are correctly applied. These areas are frequent sources of customer-perceived "network problems" and are core to modern device and service orchestration workflows.

But visibility alone is not enough. Operators must also be able to act within that same context, reconfiguring radios, updating profiles, nudging the right self-care actions, triggering entitlement repair flows, or orchestrating a multisystem-fix automatically without the customer ever needing to intervene.

Customers don't perceive their service in domains; they experience it as a single continuum. Whether issues arise at home or while moving between cells, they expect operators to manage their service with the same predictability. dependability, and coherence at any touchpoint, any device, any service.

This makes everyday edge environments, both fixed and mobile, the decisive battleground for satisfaction and loyalty. Most issues that undermine trust originate here: interference, mesh instability, weak handover behavior, misprovisioned subscription profiles, or inconsistent application performance.

These problems may be invisible to traditional network-centric tools, but they are immediately noticeable to customers. When the experience fails at the edge, the customer relationship weakens.

The shift to AI-driven proactive care

Protecting that relationship requires a new model in which device intelligence, edge visibility, and entitlement-aware service management are not peripheral activities, but core pillars of the customer experience. This is why operators are increasingly shifting toward AI-driven predictive and proactive care.

Instead of seeing service performance as a backlog of incidents waiting to be handled, AI reframes it as a continuously evolving signal loop that can be monitored, interpreted, and acted on in near real time.

In mature service operations, proactive care represents the highest stage of evolution: operators identify and resolve issues before customers even become aware of them. Rather than waiting for a customer to recognize a problem and seek help, AI-powered automation anticipates impending service degradation and initiates corrective actions automatically and safely.

This shift is enabled by a connected loop operating model, where AI continuously senses anomalies, detects root causes, decides the appropriate action, and learns from each outcome to improve future responses. This ecosystem of involvement shortens time to resolution and increasingly prevents incidents from affecting customers at all.

This is the core principle of proactive care: using data, intelligence, and automation to eliminate the gap between detection and resolution, often without human intervention, while maintaining the governance and transparency that preserve customer-centric trust.

From automation to agentic AI

Leading operators are maturing from preset rules-based automation to predictive and then prescriptive (agentic) automation, without abandoning governance. The pragmatic rollout sequence is clear: start with data source quality and tools, progress to rules, then predictive analytics, then prescriptive actions, bounded and auditable, with a human validating satisfaction.

This mirrors a proven "shiftleft" approach: optimize assisted care, expand digital self-service, and finally implement proactive automation. A core design principle throughout is context persistence across channels, "remember me once, not five times", so customers never repeat themselves as interactions move between chat, phone, and field technicians.

Personalization at scale: the central dilemma

The hardest part of modern care is not simply scale; it's the demand for personalization at scale. Customers expect interactions to be contextual and relevant, not generic. But manual personalization doesn't scale when device populations surge, and service offerings diversify.

This is where AI becomes less of an ordinary tool and more of an enabling layer. It can preserve context across channels, tailor recommendations based on device and usage signals, and choose the next-best actions based on patterns learned across similar cohorts.

The important nuance is that autonomy doesn't mean "hands off." It means moving human effort to where it matters most: exceptions, complex cases, and empathy-heavy interactions. Automation should handle the predictable and repeatable, while humans handle the delicate and ambiguous.

Operational impact beyond the contact center

Proactive care is often discussed in the context of the contact center, but its value stretches far beyond it. When issue detection, guidance, and remediation become more accurate and consistent, operators can reduce unnecessary dispatches and device returns, improve first-time resolution, and create a more stable operational rhythm.

Reducing effort, lowering cost, and improving experience are compounding effects. Less firefighting frees capacity to improve services, and cleaner operations generate better data that makes automation and prediction more accurate.

This is where proactive care becomes more than a support strategy; it becomes an operating model for customer-centric service reliability.

Proactive care as a strategic imperative

Operators are increasingly converging signals across devices, services, and customer interactions to build a more complete view of service health and then acting on that view through orchestrated workflows. Importantly, those workflows can span digital self-service, assisted care, and field technicians with continuity.

Customers increasingly expect that continuity, and operators need systems that preserve context and outcomes across the entire journey. This is accelerating the shift toward a single platform for all customer touchpoints, enabling smoother, more consistent experiences end-to-end.

Proactive care has become a strategic necessity. The industry is clear that waiting carries competitive risk, and operators who hesitate will fall behind more forward-thinking peers. As customers live in an increasingly connected world, AI-driven proactive care is quickly becoming the new baseline standard for credible service.