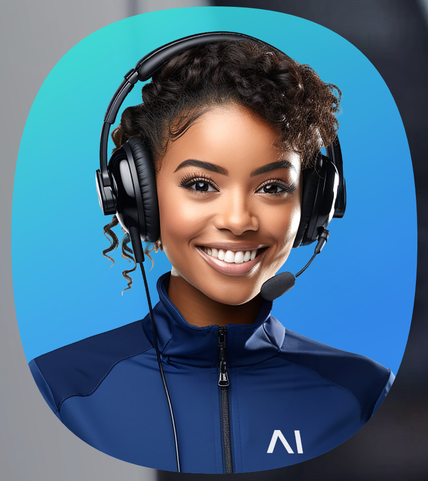
eBook

Managing the hybrid workforce in the age of AI

What CX leaders need to know to manage human and AI agents as one



NiCE

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CHAPTER 1

The AI paradox: Why technology made the human role more challenging.

For years, contact center agent performance was measured in volume, speed, and resolution. The logic was simple: handle the interaction, follow the process, close the ticket, move on.

But that model was already taking a new direction when AI showed up. As organizations expanded from voice into email, chat, social media, messaging and digital service flows, the job stopped being a single-task service role and became a multichannel coordination role.

According to our 2025 Workforce Management Research, multichannel work is the norm, not the exception. 79% of respondents said agents handle multiple channels concurrently on most or every shift. The same report says the agent role has become more complex than ever before.

And the complexity wasn't just structural. Agents were no longer just resolving issues. They were switching contexts, managing cognitive load, balancing channel norms, navigating fragmented systems, and carrying the brand experience across increasingly nonlinear journeys. That pressure had to go somewhere.

In our Stress to Success Survey, more than half of agents said multichannel communication made their jobs harder, 81% said interactions had become more complicated, and 72% reported that work stress had increased by 30% or more—and this was before agentic AI became the market's dominant conversation.

> “79% of agents handle multiple channels concurrently on most or every shift.”
>
> - NiCE 2025 Workforce Management Research

> “72% of agents report that work stress has increased by 30% or more.”
>
> - NiCE Stress to Success Survey

Behind the scenes, leaders were trying to preserve old management logic inside a new operating reality. Our 2025 research paper, Managing the Modern Contact Center: Current Employer Trends notes that digital expansion did improve customer satisfaction scores—the first touchpoint got easier. But simplifying the customer experience did not simplify the human role behind it. If anything, it did the opposite. The easier it became to access the first touchpoint, the more the remaining work concentrated in exceptions, emotionally charged moments, and journeys that automation could not finish.

Friction accumulated. Attrition followed. Average unmanaged attrition sits at around 40% across the industry in every survey. That is not just a labor issue. It is a design issue.

> “AI didn't arrive to a stable, well-managed system. It arrived to one already under strain.”

CHAPTER 2

The redistribution mandate: Navigating high-consequence service.

When considering the evolution of the modern contact center wrokforce, we can view it in three "eras": traditional, multichannel adaptation, and hybrid—the one we are in now—in which journeys begin with automation, move through intelligent routing, and end with a person when complexity, risk, or emotion demands human judgment.

Traditional era

- Human-led service
- Mostly voice-based workflows
- Staffing and efficiency focused

Multichannel era

- Human-led service with task automation
- Cross-channel workflows
- Coordination and experience focused

Hybrid era

- Human and AI agent execution
- Shared workflows across humans and AI
- Orchestration and shared performance

It's not hard to make the case for AI in customer service. It undoubtedly enables simpler customer experiences, shorter queues, automated resolution of routine requests, better routing, and consistent knowledge delivery at scale. The productivity gains are real, and organizations that have deployed AI well are seeing them.

Nevertheless, the data confirms that AI hasn't rescued contact center agents from all the hard work. When AI enters the operation, the work does not disappear. It is redistributed. Interactions move across human agents, AI agents, automation flows, knowledge systems, orchestration layers, and escalation paths. Some are fully resolved by automation. Some are partially handled and handed off. Some require human intervention only at the point where complexity, risk, or emotional register crosses a certain threshold.

> "The complexity has not disappeared. It has been redistributed."

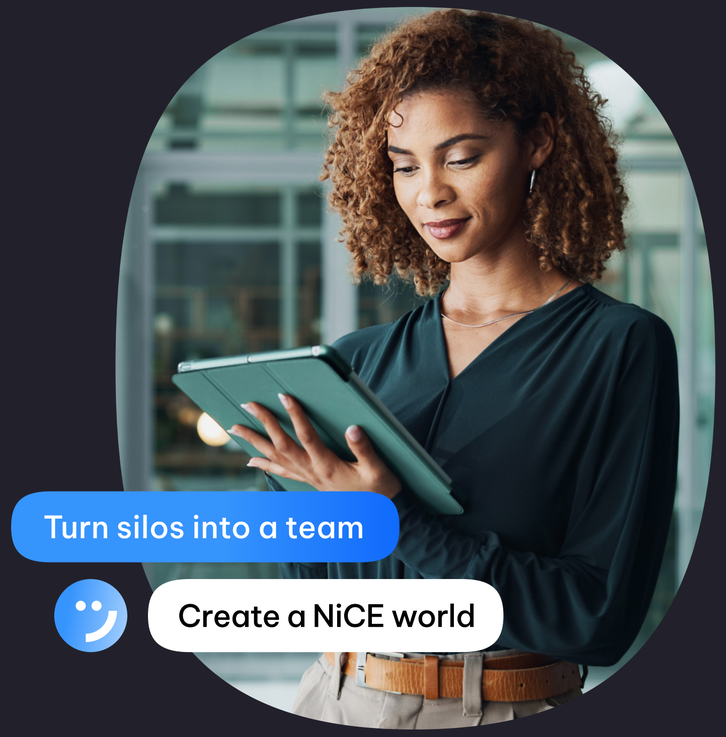
This is a less-understood implication of AI in customer service. For years, complexity in the contact center was associated mainly with volume, queue management, staffing ratios, and channel mix. Those pressures still exist. But AI has added a second layer—and it has pushed the human role further up the value chain. Modern agents find themselves in the role of an escalation point, judgment layer, recovery mechanism—and increasingly, the human partner in an AI-assisted transaction. If the old role was built around handling the interaction, the new one is built around handling what the system could not fully resolve on its own.

> “The agent role is built around handling what the system could not fully resolve on its own.”

It’s worth taking a moment to consider how this looks in practice. The interactions that reach a human agent today are not the ones that used to define the job. They are the ones that the AI agent couldn’t resolve alone—the complaint that carries real emotional weight, such as a subscription cancelation following a bereavement; the billing dispute with three years of history behind it; the customer who has already called twice and is running out of patience. These are not routine. They require reading a situation, making a judgment call, and often absorbing frustration that was generated earlier in the journey. The work is narrower in volume. It is considerably deeper in consequence.

The bar has risen. Agents must be more adaptive. Supervisors must be more analytical. Operations leaders must be more precise. And the operating model must become far more dynamic than the traditional contact center ever required. This is the natural result of distributing work across different actors with different strengths.

> “The real transition is not a technology deployment. It's a new operating reality.”



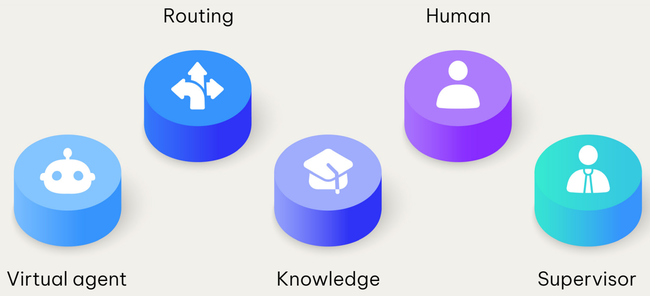
CHAPTER 3

The improvised hybrid: When operating reality outpaces management design.

By the time most organizations start talking seriously about hybrid workforces, they are already operating one.

Not always by design. More often by silos.

The siloed hybrid



A virtual agent handles the first interaction without any real orchestration. A routing model determines intent and urgency. A knowledge system surfaces recommendations built around human scenarios. A human agent steps in when things get complicated—often after a customer has already had a disappointing experience with the AI agent. A supervisor reviews quality across only part of that chain. Performance is measured separately for the human layer and the AI layer. Handoffs get no score at all.

More than half of ICMI's 2025 State of AI study respondents said they are already using AI in the contact center, and 80% expect AI funding to increase over the next 12 months. AI is no longer a side initiative. It is becoming a normal part of customer experience operations, whether leadership has a framework for it or not.

Microsoft's 2025 Work Trend Index describes the same movement at the enterprise level: organizations are moving beyond experimenting with AI and beginning to rebuild around it, with people increasingly directing AI agents that execute parts of workflows.

And yet the management model hasn't caught up. That gap is the practical reality now taking shape across the customer experience domain . AI is no longer sitting at the edges as an assistive tool. It is embedded in the flow of execution itself—absorbing volume, influencing outcomes, altering escalation patterns, and changing the profile of work that reaches human teams. The result is not a more digital contact center. It is a workforce composed of different forms of labor working toward the same outcome. And it is raising questions that too few organizations are taking seriously:

Which interactions should AI handle alone?

When should work transfer to a human agent?

What context should carry over with the interaction?

How should quality and performance be measured when parts of the experience were delivered by AI and parts by a human?

These are not product questions. They are management questions.

In a hybrid system, no part of the workforce operates in isolation for long. One weak handoff increases effort at the next human touchpoint. A poorly governed AI moment can generate downstream work rather than eliminate it. The old boundary between "the workforce" and "the technology stack" is no longer useful—because the technology is no longer only enabling the work. It is doing part of the work.

Once that happens, leadership assumptions must shift. Capacity can no longer be understood only in human terms. Performance can no longer be attributed only to human execution. Quality can no longer be reviewed only at the agent level. Improvement can no longer depend only on coaching people. The unit of management moves from the individual human role to the combined service system.

The hybrid workforce is not simply an organization that employs people and also uses AI—almost every enterprise can claim that. A true hybrid workforce is one in which human and AI work are interdependent, continuously exchanged, and managed against shared business outcomes.

That changes what good leadership looks like. The supervisor role changes. Operations leadership changes. Quality management changes. In a hybrid environment, coaching is no longer only about improving individual agent behavior. It is about understanding where the system is failing people—where AI is creating ambiguity, where workflows introduce friction, where performance issues are systemic rather than individual.

NiCE research puts it plainly: **the future is neither fully human nor fully automated. It's a mix.** And a mixed model is exactly where management becomes the differentiator—because once the workforce is hybrid, performance no longer centers on how good your people are, or how powerful your AI is. It centers on how well the two work together. The winners won't be the fastest to automate. They'll be the ones who design the clearest interactions between humans and AI, govern the handoffs, maintain visibility across the full system, and keep improving as the work shifts.

In practice, that kind of design is a daily discipline, not a one-time configuration. It shows up in how escalation thresholds are set and reviewed. In whether supervisors can see the full arc of an interaction or only the segment a human touched. In whether the people responsible for AI performance and the people responsible for workforce performance are in the same conversation or separate ones. The organizations pulling ahead are not necessarily the ones with the most sophisticated AI. They are the ones that have closed the gap between their technology decisions and their management decisions.

CHAPTER 4

The six points of failure: Why traditional management models break.

Most workforce management frameworks were built for a world where the work was human, the queues were more clearly defined, and the operating variables were easier to isolate. This is what we called the "traditional era" in Chapter 2 above. Forecast demand. Staff the right number of people. Track adherence. Measure service levels. Coach performance.

This logic still has value. But it no longer covers the full operating reality.

Six places the old model fails:

1. Planning

Traditional forecasting assumes demand translates into human workload in a relatively direct way. In a hybrid environment, that relationship becomes less stable. AI may fully resolve some interactions, partially handle others, and escalate only a subset. This changes not just volume, but its composition. What reaches human teams is often more complex, less predictable, and harder to average out.

Our trends research paper shows many organizations still struggling to accurately forecast by channel, and many still relying on spreadsheet-based methods that are not well suited to digital and asynchronous work.

2. Measurement

Many organizations still apply the same KPIs across very different channels and types of work. Our NiCE research shows that using identical KPIs across all channels does not necessarily provide better insight. The problem intensifies when AI enters execution.

If an interaction includes both automated and human steps, basic performance questions become hard to answer: who owns resolution quality, where time should be measured, what productivity means when a human only handles the final segment, and which metrics reflect real customer effort across the full journey.

3. Staffing logic

Legacy staffing models assume workload can be managed mainly by matching human capacity to expected demand. In a hybrid system, capacity has a second dimension: automation capacity.

The question is no longer only whether enough people are scheduled. It is whether work is being allocated to the right resource at the right point in the journey. That requires a dynamic model of work distribution, not just a better schedule.

4. Performance management

In a human-only model, improvement focuses on individual behavior: coach the agent -> improve the outcome. In a hybrid model, performance may have less to do with an individual and more to do with workflow design.

A weak handoff, poor AI containment logic, missing context, or inconsistent knowledge can produce human performance failures that are not human in origin. Leaders need to separate people problems from system problems with much greater precision.

5. The supervisor role

Supervisors were already under pressure before AI became central to operations. Now they are expected to manage people while also understanding how AI affects interaction quality, workload shape, escalation patterns, and coaching priorities.

This and more, supervisors are now expected to oversee the entire workforce. That is a categorically broader job—and it requires better visibility and better tools, not simply more effort.

6. The employee experience

When management systems lag behind the real shape of work, the burden lands on the frontline. Agents inherit the harder interactions, work across more channels, and compensate for workflow gaps they did not create.

This accumulated burden is undoubtedly contributing to attrition levels that hover around 40% across the industry. And it's not just a labor problem waiting for an HR solution. It's a systems problem waiting for a design one.

Legacy management does not break because it was wrong. It breaks because it was built for a different workforce model.

The next operating model has to do more than manage labor efficiently. It has to understand how work moves, where complexity concentrates, when AI should act, when people should step in, and how performance should be measured across the full system.

The answer is not to discard what came before. Forecasting still matters. Scheduling still matters. Coaching still matters. But each of those disciplines now needs to operate inside a wider frame—one that accounts for AI as a participant in execution, not just a tool in the background.

> “Legacy management does not break because it was wrong. It breaks because it was built for a different workforce model.”

CHAPTER 5

Closing the visibility gap: The imperative of unified performance, observability and trust.

The six failures in Chapter 4 share a common thread. None of them can be solved without addressing a more fundamental issue: how do you manage what you cannot fully see?

In a human-only contact center, that question had a relatively straightforward answer. You watched the queues, reviewed the calls, coached the agents, tracked the scores. In a human-only contact center, performance was visible because the workforce was visible, and leaders could follow the management chain end to end.

In a hybrid workforce, that visibility breaks down. A customer starts with an AI agent, moves through automation, reaches a human agent, and forms an impression shaped by all three. Human performance sits in one framework, AI performance in another, and the handoff between them—the moment that often determines the customer experience—sits in neither.

That is where the new management equation begins.

On the human side, performance management is familiar territory. Handle time, resolution rate, customer satisfaction, quality scores—these are well-established measures, imperfect but understood. Leaders know how to read them, how to act on them, and how to use them to coach and improve.

AI performance is measurable through different signals—containment rate, intent accuracy, fallback frequency, escalation patterns—but in most organizations, these are tracked separately, in technical dashboards that rarely sit alongside human performance data.

That separation is one of the most costly blind spots in hybrid operations. In a system where human and AI work is interdependent, performance on one side cannot be understood without the other. A spike in handle time on the human side may have nothing to do with agent behavior; it may be the direct consequence of a poorly contained AI interaction that handed over without context. A dip in customer satisfaction may not reflect a coaching problem; it may reflect a flaw in the AI flow that is creating frustration before the human agent even picked up.

> “In a system where human and AI work is interdependent, you cannot understand performance on one side without understanding the other.”

Until those two views sit in the same frame, leaders are managing with incomplete information.

Observability is what closes that gap. This term—borrowed from the software world but increasingly essential in CX operations—is the ability to see, measure, and track how AI performs in live customer interactions alongside the human workforce. It is not just reporting. It is the foundation of informed decision-making in a hybrid environment.

With genuine observability, leaders can see how containment rates are trending and what that means for human workload downstream. They can see where handovers are happening, why, and how those handovers are affecting handle time and satisfaction on the human side. They can see which AI flows perform well, which create friction, and where targeted intervention—a routing adjustment, a flow redesign, a threshold change—will have the greatest impact.

Our NiCE, CX 2026 Trends: Top 10 Strategic Insights is direct on this point: AI observability is becoming mandatory for C-suite buy-in. Leaders are not being asked to believe in AI on instinct. They are being asked to govern it with evidence. This requires measurable outcomes that build trust across the system.

Trust that AI operates within the right boundaries.

Trust that recommendations are reliable and actionable.

Trust that performance signals reflect the full interaction.

And trust that efficiency gains do not come at the expense of experience, compliance, or brand reputation.

In a hybrid workforce, trust is not a cultural aspiration. It is an operating requirement built through the visibility that observability provides.

ICMI's 2025 research reflects where the market currently sits: many leaders say agents and customers still need more proof that AI works in their best interest. Adoption is not only a matter of deployment. It is a matter of confidence earned through consistent, visible, measurable performance over time.

Good governance is what makes that confidence possible at scale. Without it, every AI expansion adds uncertainty. With it, the organization can move faster because the system has proven reliable.

What that means practically is that trust is not a milestone you reach. It is something agents feel—or don't—every time they pick up a handoff from an AI agent and find either the context they need or a blank screen. It is something supervisors experience when they try to coach a team member on an interaction they can only see half of. It is something the business earns slowly, interaction by interaction, as the system proves it can be trusted.

ICMI respondents are clear on what makes that earning process work: transparent communication, stakeholder involvement, strong training, and measured rollout outperform big-bang implementation every time. **Hybrid workforce management is not a launch moment. It is an ongoing discipline.**

> “Trust is not a cultural aspiration. It is an operating requirement built through visibility.”

CHAPTER 6

The empowerment paradigm: Shifting from individual to systemic excellence.

Every major shift in how work gets done eventually produces a shift in how work gets managed. The move from craft to factory production required new management disciplines. The move from single-channel to multichannel required new coordination models. The move from human-only to hybrid requires a genuine rethink of what the management category is actually for.

WEM was built to help organizations plan, schedule, monitor, coach, and support human employees. It was a genuine step forward, moving the industry away from treating labor as a cost to be controlled and toward recognizing that performance improves when employees are better supported, better informed, and better engaged.

That thinking still matters. But it is no longer enough.

In a hybrid workforce, the question is no longer how well individuals perform, but how effectively the system performs as a whole. It needs quality and compliance models capable of evaluating the full interaction chain, not just isolated human segments. And it needs leaders equipped to make sound decisions about work distribution, not just labour allocation.

Empowerment reflects that shift—focusing on how work flows, where it breaks, and how it improves across the entire operation.

WEM		Workforce Empowerment
• Human-focused	›	• Hybrid workforce-focused
• Channel-based	›	• Journey-based
• Individual performance	›	• Shared performance

> “In a hybrid workforce, the question is no longer how well individuals perform, but how effectively the system performs as a whole.”

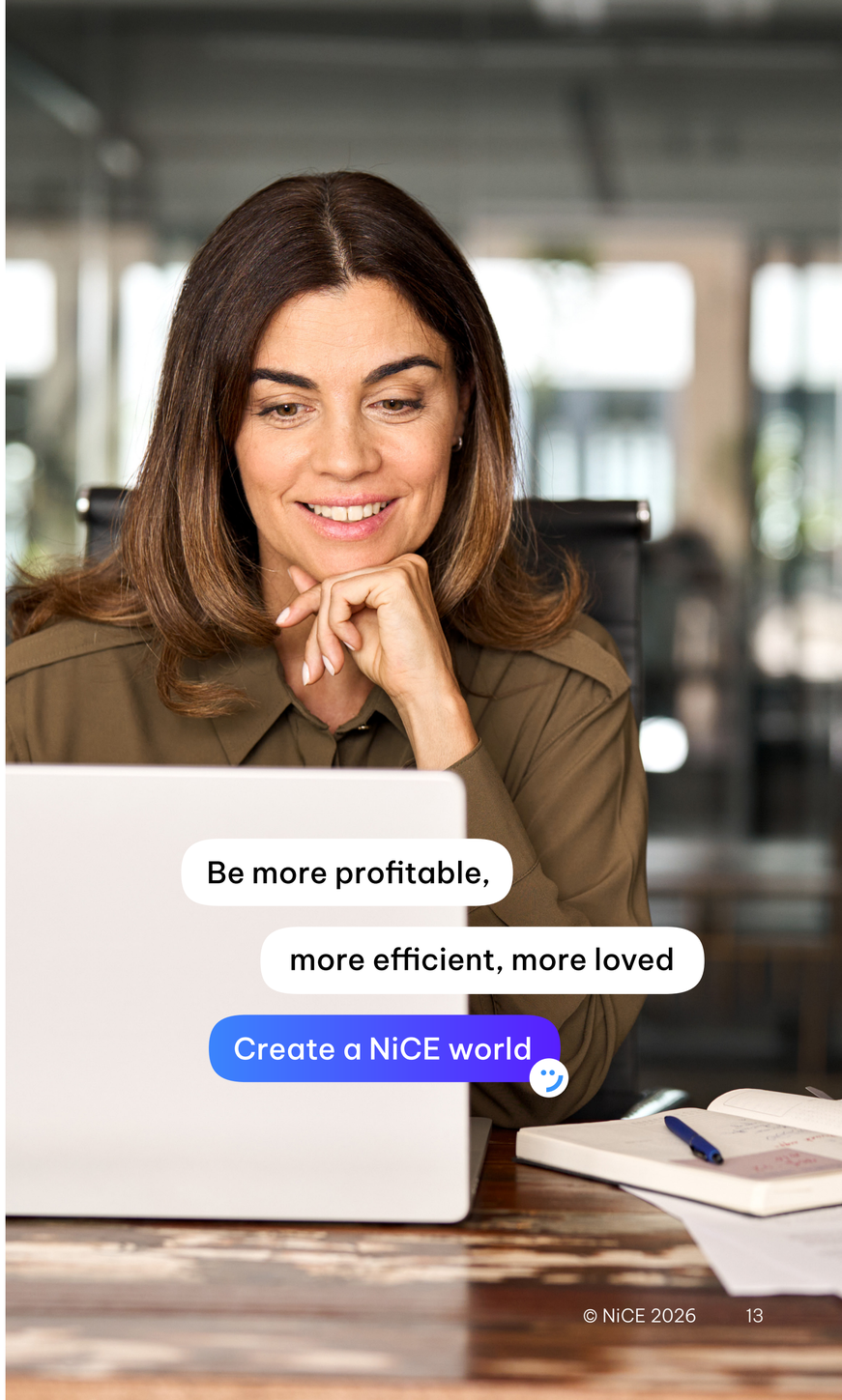
The management questions in a hybrid workforce are structurally different from those in a human-only model—and so are the answers. Empowerment-oriented leadership looks at where AI is creating downstream friction as well as where it is adding value. It adapts planning as automation reshapes demand, measures quality across AI-led and human-led moments in the same journey, and evolves coaching and accountability to reflect the fact that outcomes are now shaped by both.

A leader responsible for workforce performance today does not need two separate dashboards—one for human teams, another for AI. They need one operating model that brings together planning, real-time management, performance visibility, quality, compliance, and continuous improvement across the full-service system.

Our Workforce Empowerment framework is built around exactly that recognition.

As AI takes on more repetitive and predictable work, the human role becomes more specialized, more consequential, and more dependent on a well-designed operating environment. Empowering the workforce means two things simultaneously: giving people what they need to succeed in increasingly complex work, and giving the enterprise the visibility and control it needs to manage AI as a full participant in execution—not a background tool.

> “Manage AI as a full participant in execution—not a background tool.”



CHAPTER 7

The architecture challenge: One workforce requires one platform.

> “Managing a hybrid workforce is not just a management challenge. It is an architecture challenge.”

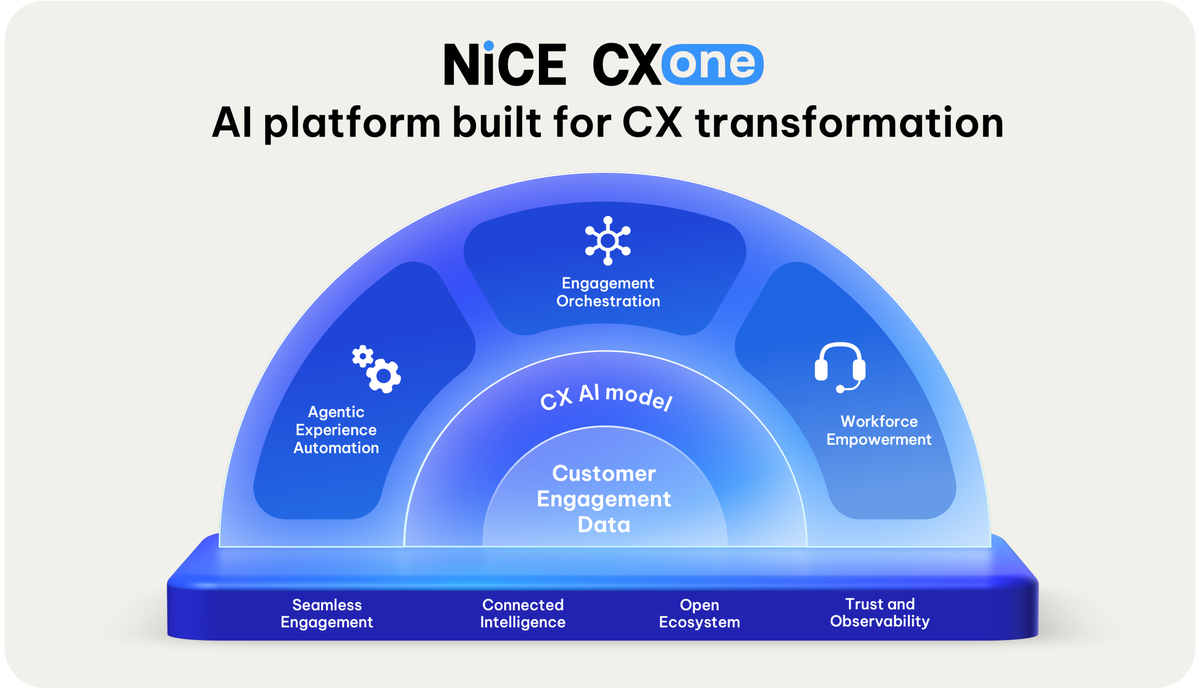
Once AI agents, orchestration, knowledge, workflow automation, workforce management, performance, and observability all shape the same customer journey, they cannot be managed effectively as separate systems. If they sit in different layers, leaders are forced to reconstruct the operation after the fact—stitching together handoffs, performance signals, and planning assumptions across disconnected tools.

This matters because hybrid performance is created across the full system, not inside isolated applications. Forecasting depends on understanding how work is distributed between human and AI agents. Orchestration depends on shared context and continuity across workflows. Performance depends on seeing AI and human outcomes in the same frame.

Governance depends on observability being built into execution, not added later as a reporting layer. AI orchestration happens at the platform level, not bolted on at the product level, and connected intelligence flows across the suite on one shared foundation.

If the architecture is fragmented, the operating model fragments with it. Human and AI performance sit in different places. Handoffs lose context. Supervisors see only part of the journey. Workforce planning treats AI as external to the demand model instead of part of the system. Improvement slows because no one is working from the same operational truth.

A complete native CX AI platform changes that. It allows organizations to manage humans and AI separately where needed, but govern them together where it matters. It turns orchestration, memory, workforce empowerment, AI agents, and observability into parts of the same operating environment. And it gives leadership one place to plan, measure, improve, and trust the system as a whole.



CHAPTER 8

The integrated operating model: Workforce empowerment in practice.

That kind of operating model doesn't emerge from a standing start. It requires depth—in workforce engagement management, in AI, and in the architecture that connects them.

The best management suite is one that bring all three.

NiCE's WEM heritage and its Cognigy AI capabilities close the gap between managing human work and managing AI work. Automation, analytics, orchestration, and customer experience are all part of the equation. The result is one operating model built for a workforce that is genuinely hybrid: human and AI, interdependent, managed as one.

This is not a theoretical position; it is the category we are now defining. Here is what it looks like in practice across three of the most important management disciplines:

01 Workforce management

02 Performance management

03 Monitoring and real-time intervention

> "One operating model built for a workforce that is genuinely hybrid."

Monitoring and real-time intervention:

Traditionally, live monitoring meant supervisors watching human agents, tracking interactions as they happened, spotting issues early, and stepping in when needed. Now, in a hybrid workforce, that same supervisory discipline has to extend to AI-led interactions too.

NiCE's Supervisor Workspace does exactly that. A new dedicated tab gives supervisors direct visibility into the real-time performance of AI agents alongside their human teams—active agent count, interactions in progress, containment rates, customer sentiment—all in one place, without switching tools or reports.

But visibility alone is not enough. When an AI-led interaction shows signs of risk—negative sentiment, repeated failure to resolve, rising escalation probability—supervisors can intervene directly. They can hand the interaction to a human agent, replace the AI agent entirely, or suggest changes to the AI flow, all from within the same workspace.

This changes the supervisor's role in a fundamental way. It is no longer only about monitoring individual employees. It is about overseeing an entire layer of digital labor operating in parallel, across potentially thousands of interactions at once.

> “Supervisors can oversee human, AI, and joint interactions—all from within a single workspace.”

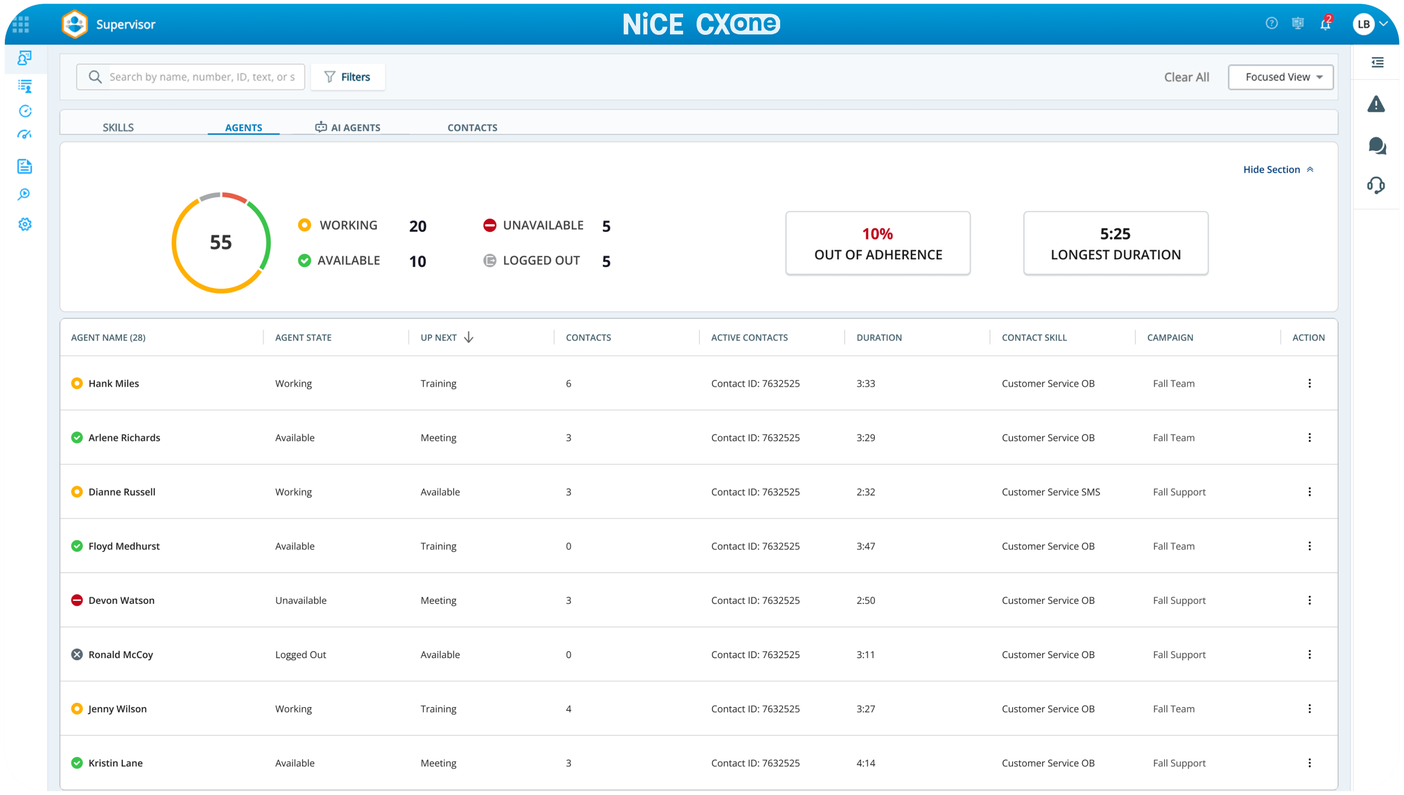


Figure 1: Supervisor workspace live monitoring page

Performance management:

In most organizations today, human performance and AI performance are still measured separately. Human metrics live in one framework; AI performance sits in technical or operational reporting somewhere else. The result is that leaders cannot see how the workforce is performing as a whole, only how each part performs in isolation.

NiCE's combined performance management dashboards bring both sides into a shared summary view, where they can be evaluated in the same environment. A shared KPI layer presents average handle time, customer satisfaction, and abandoned interactions side by side across AI and human agents, giving leaders an immediate picture of hybrid workforce performance without needing them to switch between separate systems.

Going beyond point-in-time snapshots, the dashboard also includes trend views over time, tracking how handle time and sentiment evolve across both AI and human interactions. This makes it possible to spot patterns, identify shifts early, and understand where performance is improving and where intervention may be needed.

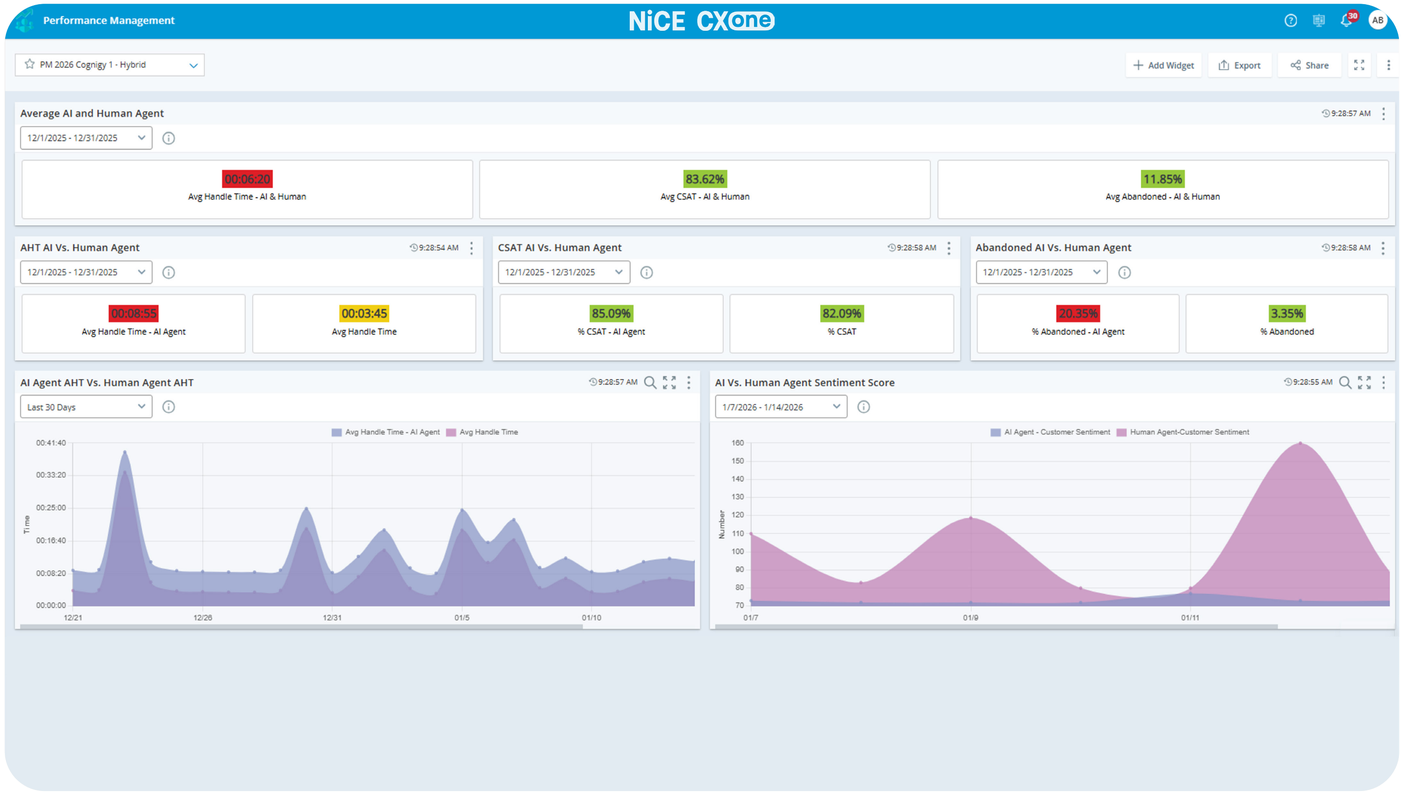


Figure 2: Performance management hybrid dashboard

A second dashboard focuses specifically on handovers—historically one of the biggest blind spots in hybrid operations. It surfaces handover volume, handle time, and CSAT across both AI and human agents, tracks how often AI escalates and why, and monitors how those patterns change over time. At the AI-agent level, it flags fallback rate, customer sentiment, and intent accuracy, making it straightforward to identify where AI flows need improvement or routing should be adjusted.

The result is simple but significant: handovers between AI and human agents become a clear, measurable, and improvable part of how they work together.

> “Handovers between AI and human agents become a clear, measurable, and improvable part of how they work together.”

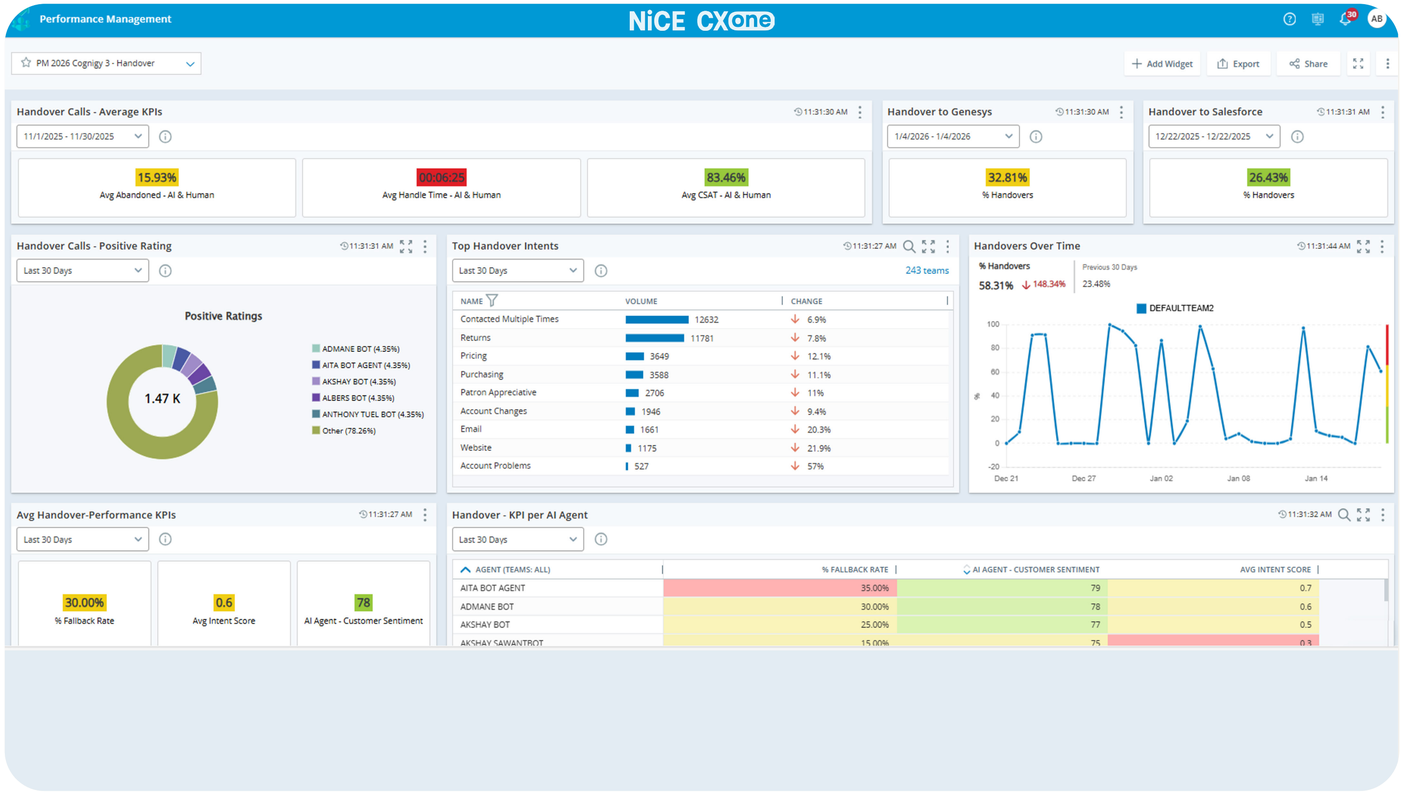


Figure 3: Performance management handover dashboard

Workforce management:

Planning has always been the foundation of contact center operations. In a hybrid model, it becomes more important and more complex in equal measure. If forecasting only accounts for human workload, it misses half the picture. And as AI contains more volume, the human work that remains becomes harder to predict from historical patterns alone.

NiCE Workforce Management is built to account for both. AI-led interactions are included in the demand model from the start, with forecasting that reflects the different characteristics of each interaction type, channel, and handoff pattern. As AI containment grows, WFM adjusts, planning more accurately for the human work that remains, rather than treating AI volume as a variable that sits outside the model.

The outcome is a workforce plan that reflects how work is actually distributed across the hybrid system—not just how many people are needed, but what they will be doing, when, and in what context.

> “As AI containment grows, WFM adjusts, planning more accurately for the human work that remains.”

What it all comes down to

The contact center that wins in the hybrid era will not be the one that automates the most, or the one that simply hires better people. It will be the one that designs the clearest system, knows which work belongs to AI, which belongs to people, how they hand off, how they improve together, and enables leaders to see all of it clearly enough to act.

That is what workforce empowerment means in practice.

Ready to manage your hybrid workforce on one platform?

Contact us

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About NiCE

NiCE is transforming the world with AI that puts people first. Our purpose-built AI-powered platforms automate engagements into proactive, safe, intelligent actions, empowering individuals and organizations to innovate and act, from interaction to resolution. Trusted by organizations throughout 150+ countries worldwide, NiCE's platforms are widely adopted across industries connecting people, systems, and workflows to work smarter at scale, elevating performance across the organization, delivering proven measurable outcomes.

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