

CASE STUDY | DIGITAL ADVERTISING & SOFTWARE ECOSYSTEM

From Ad Hoc to Optimizing:

How a Cross-Functional Team Built a CX Operating System from Scratch

A case study in customer experience transformation, operational excellence, and cross-functional alignment in a global digital advertising ecosystem.

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About this case study

This case study is drawn from a cross-functional CX and digital transformation initiative at a global enterprise software company. The company operated a large digital advertising ecosystem connecting hundreds of thousands of developers and content publishers across multiple platforms. Company names, specific metrics, and proprietary details have been anonymized.

The methodology, framework, and lessons described here are transferable to any complex, matrixed organization seeking to build a customer experience operating system - regardless of industry.

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01 The Challenge

A large ecosystem with no shared language for 'good'

The company operated one of the most complex customer ecosystems in the digital advertising industry - a platform connecting hundreds of thousands of developers and content publishers across multiple products, platforms, and geographies. Revenue depended on these customers staying engaged, profitable, and growing.

But despite the scale of the ecosystem, the organization had no shared definition of what a good customer experience looked like. Every function had its own view. Engineering optimized for platform stability. Finance optimized for payment accuracy. Support optimized for ticket resolution. Sales optimized for acquisition. None of these was wrong - but without a connecting framework, they produced a fragmented experience that frustrated customers and generated unnecessary cost.

The symptoms were visible everywhere. Customer satisfaction scores were low and declining. Support call volume was high and growing. Payout failures were a recurring source of customer escalation. Onboarding was slow and friction-filled. And the operations team was spending most of its capacity on manual processes that should have been automated years earlier.

What the data showed

- Customer satisfaction and NPS scores significantly below target
- High support call volume driven by avoidable friction
- Payout failure rate creating repeat escalations and trust erosion
- Onboarding processes requiring manual intervention at multiple stages
- Operations running at Level 1 maturity - ad hoc, reactive, no accountability
- No shared measurement of customer experience across functions

What the organization lacked

- A shared definition of what the customer experience should be at each touchpoint
- A measurement system that connected customer experience to operational performance
- A capability maturity framework to assess where each process stood
- An operating model that made the connection between experience and process explicit
- A cross-functional accountability structure with named owners and a review cadence
- A roadmap that connected near-term fixes to long-term transformation

The fundamental problem was not a technology gap or a talent gap. It was a design gap. The organization had never built a connected system for customer experience - one that linked what the customer should be able to do to the processes and capabilities that made it possible.

02 The Approach

Not a survey program. A customer experience operating system.

The team made a deliberate choice at the outset: this would not be a customer satisfaction measurement program. It would be a customer experience operating system - a connected framework that started with what the customer needed, traced that need through the journey, connected it to the capabilities that supported it, assessed the maturity of those capabilities, and built a roadmap to close the gaps.

That framing changed everything. It meant the work was not owned by a single function - it was owned collectively. It meant the outputs were not dashboards and readout decks - they were operating model changes, capability investments, and accountable action plans. And it meant success was measured not just in survey scores but in real operational outcomes: payout failures, support call volume, onboarding completion rates, digitization progress.

The five-component framework

#	Component	What it did
1	Outside-In Insight	Customer research, competitive analysis, and satisfaction data synthesized across two distinct audience segments - developers and content publishers. Established the factual foundation before any design decisions were made.
2	Customer Journey Map	End-to-end journey mapped across six stages with a specific experience statement at every touchpoint - written in the customer's voice. Each statement had a measurable metric, a current score, a target, and an impact weight.
3	Capability Maturity Assessment	A five-level maturity model applied to each process and capability - from Initial (ad hoc, no accountability) through Optimizing (automated, tied to multi-year strategy). Gave the organization a shared language for current state and target state.
4	Operating Model Alignment	Mapped every desired customer experience to the specific process and capability that supported it. Made the connection between 'what the customer experiences' and 'what we have to change operationally' explicit and visible.
5	Transformation Roadmap	Three-horizon roadmap organized by run the business, selectively stop, and transformational build - with named owners, cross-functional dependencies, and quarterly milestones. Connected the strategic framework to executable action.

03 The Cross-Functional Engine

The orchestration was the hardest part - and the most important.

A CX operating system does not get built by a single team. It gets built by an organization that decides to align around the customer - and then creates the structures to make that alignment real and durable. At this company, that meant coordinating across engineering, finance, legal, sales, customer support, and operations - each with legitimate competing priorities, and none with any formal obligation to prioritize the customer experience agenda.

The approach was to build a governance structure that made participation the path of least resistance. Rather than asking functions to attend CX meetings, the team embedded customer experience accountability into the existing operating rhythm - making it part of how priorities were set, how roadmaps were built, and how progress was reported to leadership.

What each function contributed

- Engineering and R&D brought platform capabilities and technical constraints - critical for setting realistic experience targets and building the roadmap
- Finance connected experience improvements to cost and revenue outcomes - giving the program commercial credibility and executive sponsorship
- Legal and compliance set the boundaries within which experience design had to operate - preventing rework and ensuring scalability
- Customer support provided the richest real-time customer insight - escalation patterns, failure modes, recurring friction - that no survey could capture
- Sales and partner teams brought the relationship context - what customers were saying in live conversations that was never making it back into the organization
- Operations owned the process and capability layer - without their commitment, the experience design remained theoretical

How alignment was built

- The journey map was built collaboratively - each function contributed the touchpoints it owned, ensuring buy-in and accuracy from the start
- The capability maturity assessment was conducted with process owners, not imposed on them - creating shared ownership of the current-state assessment
- The operating model connection made the business case for each function - showing how improving their specific capability would move a customer experience metric that leadership cared about
- The roadmap was prioritized jointly across functions - removing the perception that CX was a marketing initiative being imposed on the rest of the organization
- Monthly review cadences with workstream leads kept accountability visible and escalations structured rather than ad hoc

The insight that unlocked cross-functional alignment was this: every function already cared about the outcomes the CX operating system was designed to

improve. Engineering cared about platform reliability. Finance cared about payout accuracy. Support cared about resolution time. The framework gave them a shared language and a connected view - it did not ask them to care about something new. It showed them how what they already cared about connected to the customer experience.

04 The Journey Map in Practice

Writing the experience in the customer's voice changed the conversation.

One of the most powerful decisions the team made was to write every experience statement in the customer's voice - not as a system requirement or a business objective, but as what the customer should be able to say after the interaction. For example: 'As soon as I entered the portal, the system knew who I was and my account was automatically set up for use.' Not 'implement single sign-on.' The customer experience.

This framing changed internal conversations immediately. Engineers could no longer debate requirements in isolation - the question was always whether the proposed solution would enable the customer statement to be true. Finance could not optimize payment processes without asking whether the change would affect what the customer experienced at payout. The customer statement became the shared reference point.

The experience scoring architecture

Each experience statement was given a weight reflecting its relative importance to the overall experience - the higher the weight, the greater the impact of that touchpoint on the experience score. Current state was assessed against a target score. The gap between current and target, multiplied by the weight, gave the impact score - a precise quantification of how much improving that touchpoint would move the overall experience.

This architecture did two things that most CX programs fail to do. First, it made prioritization objective - instead of debating which improvements mattered most, the team could point to the impact scores. Second, it connected measurement maturity to experience maturity - recognizing that you cannot improve what you cannot measure reliably, and assessing the quality of the data behind each metric alongside the metric itself.

The six journey stages

- Learn - Discovery, education, and understanding the value of the platform
- Try - Incentives, free trials, and first experience with the product
- Register - Account creation, identity, payment and tax setup
- Publish/Advertise - Getting content or campaigns live on the platform
- Manage - Analytics, optimization, and ongoing account management
- Support - Self-serve and assisted resolution when things go wrong

What the scoring revealed

- Support touchpoints had the highest frequency but were not the highest weight - improving them improved satisfaction without moving the overall score as much as expected
- Registration and account setup were the highest-weight touchpoints - friction at onboarding predicted long-term disengagement and payout failures downstream
- Analytics and insights were consistently the top customer request across both audience segments - yet had the lowest current-state maturity

scores

- The gap between current and target scores was largest at the touchpoints with the most manual operations - validating the digitization agenda

05 Results

Measurable improvement across every dimension of the operating system.

The transformation delivered results across three dimensions: customer experience metrics, operational performance, and capability maturity. Each was tracked against baselines established at the start of the program - ensuring the results were attributable to the transformation rather than to external factors.

+30 pts CSAT Improvement Across the advertising ecosystem	+10 pts NPS Improvement Year-over-year	+40% Payout Success Reduction in payout failures	-25% Support Volume Reduction in avoidable support calls
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Operational outcomes

- Multiple capabilities advanced from Level 1 (ad hoc) to Level 2-3 (managed, defined) on the maturity scale
- Key processes moved from fully manual to technology-supported operations
- Onboarding completion rates improved as friction was removed from registration and account setup
- Payout failure rate declined as the connection between account setup quality and payment accuracy was made visible and fixed
- Self-serve support adoption increased as content gaps were identified through the journey map and systematically closed

Organizational outcomes

- First shared measurement system for customer experience across all functions - giving leadership a single source of truth
- Operating model redesigned to make the connection between customer experience and process explicit - ending the pattern of functions optimizing in isolation
- Cross-functional review cadence established as a standing governance structure - sustaining the accountability beyond the initial transformation phase
- Customer experience statements embedded into engineering roadmap planning - making CX a design input rather than a post-launch measurement
- Culture shift from 'we measure satisfaction' to 'we operate a customer experience system' - the most durable outcome of all

06 What We Learned

Six principles for building a customer experience operating system.

The lessons from this transformation are not specific to digital advertising. They apply to any organization - in any industry - that is trying to move from measuring customer experience to operating a customer experience system. The context changes. The principles do not.

1

Start outside-in, every time

The temptation is to start with what the organization knows - the processes, the platforms, the existing metrics. Resist it. Start with the customer. What does the customer need to be able to do? What does a good experience look like from their perspective? Only after that question is answered clearly should the conversation turn to what the organization has to change. Starting inside-out produces solutions to the wrong problems.

2

Write the experience in the customer's voice

Experience statements written as system requirements or business objectives produce technical debates. Experience statements written in the customer's voice - for example, 'I only have to provide my information once. The platform knows me as a customer' - produce alignment. The customer statement becomes the shared reference point that every function can test their decisions against.

3

Make the operating model connection explicit

Most CX programs stop at insight - they identify what customers want and then hope the organization acts on it. The step that most programs skip is connecting the desired experience to the specific process and capability that has to change to deliver it. Without that connection, insight remains aspiration. With it, insight becomes an action plan.

4

Measure maturity, not just performance

Performance metrics tell you where you are. Maturity assessments tell you how reliably you can get there and how sustainably you can stay there. A process that hits its performance target this quarter but is running on manual operations and individual heroics is not a mature process - it is a risk. Building maturity alongside performance is what creates durable improvement.

5

Cross-functional alignment is a design problem, not a people problem

Lack of cross-functional alignment is usually diagnosed as a culture problem or a leadership problem. In most cases it is a design problem. Functions optimize for what they are measured on. If customer experience is not in the measurement system for engineering, finance, support, and operations, those functions will not optimize for it - not because they do not care, but because the system they operate in does not reward it. Design the accountability structure first. The culture follows.

6

The operating rhythm sustains what the initiative starts

Every transformation initiative eventually loses momentum. The ones that stick are the ones that embed the new behaviors into the operating rhythm - monthly reviews, roadmap planning, executive reporting - so that the accountability structure outlasts the energy of the initial launch. Build the cadence before you think you need it.

The organizations that lead in customer experience are not the ones with the most sophisticated measurement systems. They are the ones that have built the governance, the accountability, and the operating model connections to act on what they learn - consistently, at scale, and with the customer experience always connected to operational reality.

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