

# openreach

## How Openreach Quietly Built One of the UK's Largest Agentic AI Operations

Openreach is the UK's national broadband network builder, connecting millions of homes and businesses and maintaining the infrastructure used by roughly 700 communication providers. Its wholesale model means Openreach builds and repairs the network on behalf of partners who own the end-customer relationship, a structure that historically placed the customer conversation one layer removed from the team doing the work. Openreach saw an opportunity to close that gap. Starting with a single proof of concept reaching five thousand customers a month, the Openreach Customer Service team built a proactive AI engagement layer that now orchestrates more than 1.1 million customer journeys a month across its partner ecosystem, resolves 95 percent of interactions without a human in the loop, and delivers tens of millions of pounds in annual value while lifting NPS from zero to plus sixty-five. The program runs on NiCE Proactive AI Agent, with NiCE AI Agents (Cognigy) extending the orchestration into voice and generative interactions.

**1.1M+**

Proactive AI customer journeys orchestrated every month



**95%**

AI containment across automated customer journeys



**0 to +65**

NPS trajectory over five years



**£10M+**

Estimated annual value, tens of millions of pounds



**90,000**

Wasted engineer visits avoided every year



**1.6 to 4.6**

Trustpilot score across 300,000+ reviews



### Customer profile

#### About

Openreach connects millions of UK homes and businesses and maintains the national network infrastructure used by roughly 700 communication providers. It is rolling out full-fibre broadband to 25 million premises by the end of 2026.

#### Industry

Communications

#### Website

openreach.co.uk

#### Location

EMEA

#### Products

- NiCE Proactive AI Agent
- NiCE AI Agents (Cognigy)
- NiCE Feedback Management

#### Goals

- Build a direct, proactive engagement layer with end customers across a 700-partner wholesale ecosystem

- Replace fragmented carrier-led communications with a coordinated, orchestrated experience

- Free engineer and desk capacity to accelerate the national full-fibre rollout

#### Features

- Multi-day, multi-channel AI-orchestrated journeys across SMS, email, and voice
- Closed-loop agentic execution that writes back to operational systems in real time
- Generative AI for differentiated high-risk journeys and in-journey question answering
- Vulnerability detection for customers whose loss of service would be dangerous





## 01 Before

# A Wholesale Model Where the Customer Conversation Belonged to Someone Else

Openreach is the UK's largest broadband network builder, responsible for the physical infrastructure that carries broadband and voice services to millions of homes and businesses. Its business model is unusual in the telco landscape. Openreach wholesales to roughly 700 communication providers, from Sky and Vodafone to TalkTalk, who then sell retail services to end customers. When an Openreach engineer installs fibre or repairs a fault, the person answering the door is technically somebody else's customer.

That model shaped the customer experience for decades. Communication providers owned the messaging because, historically, that was how the industry worked. Each partner ran its own notification system, its own appointment confirmations, its own translations of what Openreach was doing on a given day. Seven hundred partners meant seven hundred versions of what the customer heard, delivered in each partner's own voice and formatted through each partner's own systems. Some partners handled it well. Some handled it less well. Some passed very little through at all. The result was an engagement gap that nobody inside Openreach had the direct tools to close.

The Customer Service team at Openreach could see the operational cost clearly. Engineers were driving to empty houses because customers had never received an accurate appointment confirmation. Inbound calls were arriving frustrated because customers had been told conflicting information by different parts of the chain. Visibility into end-customer

sentiment ran through a survey layer that was hard to reconcile with internal metrics, which made it difficult to bring the right evidence forward when the team wanted to change something. Trustpilot sat at 1.6. NPS ran at roughly zero. The team knew why, but they did not yet have the mandate or the tooling to act on it at scale.

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**Our communication provider customers were the ones who owned the communication with the end customer. We certainly didn't talk to end customers on any scale. Messages were probably lost in translation.**

**Eifion Lloyd**

Senior Manager, Customer Enablement & Strategy,  
Openreach



## 02 Desire to change

### Eat the Elephant One Bite at a Time

The team's read on the opening was realistic. Seven hundred wholesale partners had spent decades owning the customer communication. It was their retail relationship, their brand promise, their revenue on the line. Convincing them to hand any of that over to Openreach was going to require something more durable than a commercial argument. It was going to require evidence, delivered in small, undeniable increments.

The Customer Enablement & Strategy team at Openreach chose the slowest possible path deliberately. Start with a proof of concept. Reach five thousand customers a month. Prove the benefit in hard numbers. Then scale one use case at a time. The first trials were manual and tactical, with Excel files uploaded to the platform and contact going out once or twice a day. The team knew the process would be clunky. They also knew that the point of a proof of concept was not elegance. It was proof.



**The hardest bit was getting them to take a leap into the unknown. Once the benefit started flowing, once they could see how it worked, that was the easier bit.**

**Eifion Lloyd**

Senior Manager, Customer Enablement & Strategy  
Openreach

The case that moved the board came from repair. Openreach runs roughly fifty thousand repair visits a week. A proactive journey that reminded customers of their appointment and offered self-help for common equipment faults such as router power cycling, cable displacement, and basic troubleshooting resolved around four percent of faults before an engineer left the depot. At that scale, four percent is two thousand fewer truck rolls every week. Every truck roll saved from a preventable fault is an engineer hour Openreach can redeploy onto the full-fibre build. That was the moment the evidence became impossible to ignore, and the first of three successive board approvals that have governed the program's expansion over the five years since.

## 03 NiCE solution

### From SMS Reminders to a Closed-Loop Agentic Operation

Openreach now runs more than twenty proactive AI journey types through NiCE Proactive AI Agent, orchestrating over 1.1 million customer journeys every month across SMS, email, and increasingly voice. The operational philosophy has held since the first trial. Automate what the customer would do on their own if given the chance. Keep human judgment where the stakes demand it. Write back to Openreach's operational systems in real time so the AI does not just inform, it acts.

#### Multi-Day, Multi-Touchpoint Journeys

A typical fibre installation journey begins within minutes of a communication provider placing the order. Openreach's API feeds real-time order data into the platform, which then welcomes the customer to the Openreach network, confirms the appointment date, and offers a self-serve calendar for rescheduling.

Customers can move their slot around a working-from-home day, a holiday, or a football match. The platform confirms the change, rebooks the engineer, and updates the operational record. In the run-up to the appointment, the journey layers in what-to-expect content including videos explaining what happens on the day, web pages covering complex scenarios like roadworks or garden digging, and reminders timed to the appointment lead time.

On the day itself, customers can tell the arriving engineer they need extra time to reach the door, or describe their property so the engineer can find it more easily. Afterwards, Openreach confirms the connection is live and offers troubleshooting links for anyone who is not sure how to power up the new equipment. The team has extended the same journey pattern to proactive copper-to-fibre upgrades, which now handle more than 600,000 orders a year with over half of customers confirming consent through the automated flow without needing a call.

#### Closed-Loop Agentic Execution

Early versions of the journeys ran on a human-in-the-middle model. The platform collected the customer response, a desk advisor read it, a desk advisor booked the visit. Openreach has progressively replaced that handoff with direct system triggers. Today, when a customer on a non-visit installation journey tells the platform their equipment is not working, the platform consumes the response, orchestrates the next step, and automatically triggers an engineer visit if one is needed. Across the 1.1 million monthly journeys, 95 percent of interactions are contained end to end. The five percent that escalate to a human are the ones that should. Customers expressing frustration, complex queries, vulnerable situations, and cases where multiple things have gone wrong at once.



## A Vulnerability Layer Designed Intentionally

Some Openreach customers rely on continuous connectivity for medical devices. For them, any disruption to service is a safety event, not an inconvenience. Openreach runs a vulnerability detection layer in the background of every journey that scans conversations for markers such as references to elderly family members, medical equipment, and specific conditions, while respecting strict data-privacy boundaries. When the layer flags an order, it routes to a specialist desk team that can expedite engineer visits, brief the arriving technician directly, and coordinate with the communication provider on welfare cases already on file.



**There are some life-critical things that we absolutely need checks and balances for. But the vulnerability works really well in the background to help us pick out stuff that isn't immediately visible.**

**Eifion Lloyd**

Senior Manager, Customer Enablement & Strategy  
Openreach

## Generative AI, Where It Earns Its Place

Openreach's first live generative AI pilot went into operation in late 2025. A differentiated journey now reaches the thirty percent of orders identified as highest cancellation risk by an in-house data science model. Those customers receive proactive, benefit-led, directive communications that clearly explain what will happen on the day, what they need to prepare, and who needs to be present. As part of this pilot, Openreach has introduced a generative question and answer capability called "Ask me anything", designed to handle open ended customer queries in natural language.

A second tier of in-house AI called Crystal Ball and Summary Assist layers onto the core journey for delayed orders. When an engineer cannot complete a job, the customer receives a natural-language explanation of why, along with a predicted resolution date. The team's approach is consistent across all of it. Use generative AI where it supercharges the journey. Keep deterministic logic where reliability matters most.

## 04 Results

### A Wholesale Network Builder That Runs on a Direct Line to the Customer

End-customer satisfaction has risen roughly five percentage points, from around ninety percent to ninety-five percent. Trustpilot has moved from 1.6 to 4.6 across more than 300,000 verified reviews. NPS, which sat at roughly zero five years ago, now runs at plus sixty-five. Openreach has eliminated 90,000 wasted engineer visits a year, cut propensity to contact on fibre products by roughly a third, and redeployed around a third of its desk workforce away from reactive inbound handling toward higher-value work. The estimated annual value to the business runs into the tens of millions of pounds, spanning cost efficiency and revenue.

The downstream effect may be the more consequential number. Every engineer hour Openreach saves from a wasted visit or a preventable repair is an engineer hour it can redeploy onto the full-fibre build. The proactive engagement program has become part of how Openreach is delivering on its national mandate to extend full-fibre broadband to twenty-five million premises by the end of 2026, a number that sat in the single-digit millions five years ago.

The relationship with the 700-partner wholesale ecosystem has shifted alongside the metrics. Partners who once insisted on owning customer communications now actively suggest new proactive journeys and ask Openreach to map its messaging against theirs. In some cases, partners have switched off their own communications and migrated onto the Openreach layer entirely. The trust that was hardest to earn at the start of the five-year journey has become one of the program's durable outputs.



**This is stuff that we talk about at the highest levels of the organization and externally.**

**Eifion Lloyd**

Senior Manager, Customer Enablement & Strategy  
Openreach



## 05 Future

# Scaling Generative Journeys Through Deeper Personalisation

With the core journeys now live and scaled, Openreach's forward roadmap is less about new use cases and more about deepening the ones that work. Generative AI is being layered into the highest-impact journeys to push containment higher and personalize the experience further, particularly for complex orders that need multiple engineer visits, where the customer benefits from being told up front what to expect and walked through each stage.

By combining structured communications with natural language interaction, Openreach aims to reduce uncertainty and improve outcomes across longer running journeys.

The deep-dive survey delivered through the platform is helping Openreach understand why some full-fibre orders cancel, so the program can get ahead of the drivers before the appointment ever takes place. Alongside that, two new NiCE AI Agents (Cognigy) voice outbound and inbound journeys are progressing through internal testing, with the same disciplined approach that has guided the program to date. The direction of travel is the same one that drove the first five-thousand-customer trial five years ago. Prove what works. Scale what proves out.



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**The gen AI supercharges that. It gives us the opportunity to do even more, because you can in effect personalize the customer journeys more.**

**Eifion Lloyd**

Senior Manager, Customer Enablement & Strategy  
Openreach

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**Start with what you have and prove the case, even if it's a small number of customers, a proof of concept, or one journey. Sometimes it was painful, especially with the tactical Excel data files. But it was worth it**

**Eifion Lloyd**

Senior Manager, Customer Enablement & Strategy  
Openreach

## 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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