



CASE STUDY

A UK MTO'S JOURNEY TO FRICTIONLESS CROSS-BORDER REMITTANCE WITH OPEN BANKING PAYMENT GATEWAY INTEGRATION VIA NETREMIT



macro global[®]
creating value through innovation



TABLE OF CONTENTS

Introduction	01
Pre-Implementation Landscape	02
Overcoming Traditional Payment Gateway Challenges	06
Solution Implemented: Open Banking Integration with NetRemit	11
Outcome: Transformative Impact of NetRemit's Open Banking Integration	17
Conclusion	21



macro global®
creating value through innovation



INTRODUCTION

Open Banking-powered payment gateways are redefining international transactions by enabling real-time bank-to-bank transfers, cost-effective and near real time merchant settlements, and robust security while ensuring regulatory compliance.

By leveraging Open Banking APIs, modern payment gateways seamlessly integrate with banks, fintechs, and payment providers, facilitating faster settlements, dynamic FX management, and proactive fraud prevention. In contrast, traditional legacy systems are hindered by slow processing, delayed merchant settlements, high transaction fees, and compliance challenges, lacking the agility needed in today's financial landscape.

To remain competitive, financial institutions must embrace next-generation Open Banking gateways that offer real-time settlement, multi-currency support, and automated regulatory compliance. This case study examines how an Open Banking-powered payment gateway transformed cross-border payments for a leading remittance service provider in the UK, enhancing operational efficiency, reducing costs, ensuring compliance, and improving customer satisfaction.



PRE-IMPLEMENTATION LANDSCAPE

A leading UK-based remittance service provider, facilitating millions of cross-border transactions, faced increasing challenges in meeting customer expectations for instant payments, competitive FX rates, and seamless compliance. As a trusted provider for expatriates, migrant workers, and businesses, its success depended on delivering secure and efficient international money transfers.

However, outdated payment gateway infrastructure and legacy systems created significant roadblocks. The provider struggled with slow transaction processing, failed payments, high operational costs, and compliance inefficiencies. Manual workflows delayed settlements to merchant accounts, while limited API integrations hindered the adoption of fintech innovations.

Additionally, fragmented payment gateway integrations led to frequent transaction failures, increasing customer drop-off rates. Security vulnerabilities and lack of real-time payment tracking further impacted the provider's ability to scale and maintain regulatory compliance.

Let us introspect on the existing challenges:

Our team identified significant technical and integration challenges with the remittance service provider's existing cross-border payment platform.

The legacy system, integrated with a payment gateway, presented several key issues:

Pre-Implementation Landscape

Technical and Integration Challenges:

- **Inconsistent Payment Responses:** Payment systems reporting success followed by failure created financial discrepancies and reconciliation issues.
- **Refund Processing Errors:** Discrepancies in transaction/refund IDs resulted in errors and potential duplicate refunds.
- **Unstable Testing Environments:** Inconsistent sandbox environments hindered effective development and QA.
- **Manual Intervention:** Automated payment processes frequently required manual intervention for exceptions.
- **Mobile Integration Limitations:** Challenges included unresponsive interfaces, limited SDK availability, and suboptimal user experiences.
- **Redirection Failures:** Issues with 3D Secure redirection led to transaction abandonment.
- **Vague Payment Rejections:** Insufficient details on payment failures complicated troubleshooting.
- **Integration Complexity:** Large SDKs and complex integration processes increased development time.
- **Missing Feature Parity:** Essential capabilities like rule-based payment validation were absent in standard gateway packages.
- **Limited Coverage:** Some payment gateways lacked sufficient geographic reach, restricting market expansion.

Pre-Implementation Landscape

- **Reconciliation Challenges:** Reconciling transactions across multiple gateways and currencies remained complex and time-consuming.
- **Rigid APIs:** The existing integration with the traditional payment gateway provider was fragile and prone to errors, resulting in frequent transaction failures.
- **Operational Inefficiency:** Significant manual intervention was required to resolve recurring issues, impacting operational efficiency.
- **Poor Webhook Support:** The absence of webhook support prevented real-time transaction status updates, leading to delays and uncertainty for both senders and recipients.

Payment Flow Management Constraints:

- **Limited Multi-Currency Support:** The remittance service provider's existing payment gateway did not support seamless multi-currency transactions, requiring manual conversions or additional intermediaries.
- **Transaction Settlement Delays:** The existing payment gateway had slow settlement cycles, which can affect cash flow for businesses.
- **Transaction End Screens and Status Updates:** The system lacked clear and informative transaction completion pages, resulting in a poor user experience.

Security Concerns:

- **Redirection to External Pages:** Frequent redirection to external pages during the payment process introduced security vulnerabilities.

Pre-Implementation Landscape

- **Limited Fraud Detection:** Weak risk assessment tools, making transactions vulnerable to chargebacks and fraudulent activities.
- **Lack of Strong Customer Authentication:** The existing payment gateway did not provide two-factor authentication and 3D Secure 2.0

Poor User Experience:

- Users frequently encountered errors, experienced delays, and lacked real-time transaction visibility.
- The combination of integration issues, limited functionality, and security concerns led to a high rate of transaction abandonment.

Scalability Limitations:

- **Limited Customization:** The legacy system was not designed to support the growing business needs, incapable of handling larger transaction volumes.

Poor Transaction Visibility & Reporting:

- **Limited Data Insights:** The legacy payment gateway was not able to provide real-time analytics on transactions, chargebacks, and failed payments.
- **No Dispute Resolution Tools:** The existing payment gateway was unable to offer built-in chargeback management or dispute resolution mechanisms.



OVERCOMING TRADITIONAL PAYMENT GATEWAY CHALLENGES

The leading UK-based remittance service provider faced significant roadblocks due to legacy payment gateways, hindering its ability to deliver fast, cost-effective, and seamless international transactions. Settlement delays, operational inefficiencies, and compliance hurdles negatively impacted profitability, liquidity, and customer experience.

To address these challenges, Macro Global's analysts identified key inefficiencies in payment processing, security vulnerabilities, and regulatory gaps. As a solution, NetRemit, integrated with an Open Banking-powered payment gateway, was introduced to eliminate settlement delays, enhance operational efficiency, and ensure full regulatory compliance.

By leveraging NetRemit's advanced cross-border payment capabilities and Open Banking APIs, the provider achieved frictionless, secure, and scalable payment processing—effectively overcoming the limitations of traditional payment gateways and unlocking a new standard of efficiency in cross-border transactions.

Overcoming Traditional Payment Gateway Challenges

Core Payment Processing Challenges:

Traditional remittance models face slow settlements, high costs, and financial risks. NetRemit optimises speed, reduces costs, and improves liquidity for a seamless experience.

Key Challenges	Impact	Solution Provided
Delayed Disbursement and Settlement Bottlenecks	Traditional T+1/T+2 cycles slow remittances, frustrating customers.	NetRemit enables instant cross-border transactions.
Liquidity Constraints and Capital Lock-In	Slow settlements force high liquidity reserves.	NetRemit optimises cash flow, reducing capital lock-in.
Chargeback Risks and Revenue Losses	High chargebacks lead to revenue loss and account suspensions.	NetRemit's AI-driven fraud prevention minimises risks.
Currency Conversion and FX Volatility	Poor exchange rates erode margins.	NetRemit offers dynamic FX management for competitive rates.
Excessive Transaction Fees	Costly payment gateways reduce profits.	NetRemit's multi-network integration lowers fees and boosts efficiency.

Overcoming Traditional Payment Gateway Challenges

Operational and Regulatory Roadblocks:

With stricter regulations and complex payment networks, remittance providers need scalable solutions. NetRemit automates processes, enhances transparency, and lowers compliance costs for seamless global remittances.

Key Challenges	Impact	Solution Provided
Complex Multi-System Logins	Managing multiple credentials is inefficient.	NetRemit's unified dashboard centralises access to all payment and compliance systems.
Restricted Transaction Visibility	Poor access to payment history hinders reconciliation.	NetRemit's real-time reporting ensures seamless financial management.
International Payment Processing Barriers	Processing issues and failed transactions disrupt operations.	NetRemit's smart routing boosts success rates with real-time diagnostics.
Stringent Compliance and Regulatory Burdens	KYC, AML, and sanctions screening are complex.	NetRemit's automated compliance simplifies adherence and reduces risk.

Overcoming Traditional Payment Gateway Challenges

Business and Customer Experience Challenges:

From checkout limitations to payout delays, traditional payment gateways hinder operational agility. NetRemit's cutting-edge solutions enable effortless customisation, instant settlements, and omnichannel payment support, allowing businesses to scale without constraints.

Key Challenges	Impact	Solution Provided
Checkout Customisation Limitations	Limited branding and rigid checkout experiences diminish trust and conversion rates.	NetRemit offers customisable payment flows, enhancing brand consistency and user experience.
Complex Security Configurations	Misconfigured 3D Secure settings lead to errors and failed transactions.	NetRemit's seamless security integration ensures fraud protection without compromising customer convenience.
Inadequate Customer Support	Slow response times and limited support options hinder issue resolution.	NetRemit provides dedicated 24/7 support for uninterrupted service.
Account Management Friction	Difficulties in account cancellations and access restrictions create user dissatisfaction.	NetRemit ensures flexible account management with enhanced control for businesses.

Overcoming Traditional Payment Gateway Challenges

Key Challenges	Impact	Solution Provided
Limited Merchant Acceptance and Payment Restrictions	Many gateways impose restrictions on merchants, limiting business expansion.	NetRemit's extensive payment network enables businesses to operate globally without barriers.
Delayed Payouts and Restricted Funds Access	Long processing times for fund disbursement affect business liquidity.	NetRemit's instant settlement solutions accelerate payouts, enhancing cash flow.
Lack of Customisation Without Coding	Rigid payment infrastructures limit business flexibility.	Macro Global offers low-code and no-code customisation, empowering businesses to tailor payment solutions without extensive development.
In-Person Transaction Limitations	Traditional payment solutions overlook in-person transactions.	NetRemit supports omnichannel payments, expanding business opportunities.

SOLUTION IMPLEMENTED: OPEN BANKING INTEGRATION WITH NETREMIT

To overcome the inefficiencies of legacy payment processing and elevate transaction capabilities, the service provider successfully integrated the Open Banking payment gateway provider's OneClick solution with NetRemit.

This transformative integration introduced real-time, secure, and frictionless transactions, optimising the sender's payment experience while ensuring regulatory compliance, fraud prevention, and operational efficiency.

Merchant Account Setup and API Credential Authentication

The remittance provider established a merchant account with the Open Banking gateway, supported by NetRemit for smooth onboarding. This process involved rigorous due diligence and business documentation to meet regulatory requirements. Once the vetting process was completed, the Open Banking payment gateway provider issued:

Unique API credentials (API keys, client secrets, and authentication tokens) to enable a secure and compliant connection between NetRemit and the payment gateway.

OAuth 2.0 or an equivalent secure authentication mechanism to validate access tokens and prevent unauthorised API requests.



Solution Implemented: Open Banking Integration with NetRemit

Banking partner validation and whitelist approvals to facilitate seamless transaction processing across multiple banking institutions.

Seamless API Integration

The team executed a full-stack integration with the Open Banking payment gateway provider's OneClick API with NetRemit - Cross Border Payment Suite, ensuring high-speed, automated, and error-free transactions.

The core integration steps included:

Secure API Authentication: NetRemit leveraged OAuth 2.0 authorisation flows to establish a robust, encrypted connection with the Open Banking payment gateway provider, ensuring secure and compliant payment initiation.

Real-Time Payment Status Updates: The API was configured to fetch live payment statuses synchronously, providing instant transaction visibility for both remittance senders and recipients.

Webhook Implementation for Event-Driven Alerts: To eliminate latency from traditional polling mechanisms, NetRemit implemented event-driven webhooks, allowing the Open Banking payment gateway provider to push real-time notifications for successful transactions, payment failures and declines, refund processing and customer authentication events.

Solution Implemented: Open Banking Integration with NetRemit

Refund Processing Capability: The integration utilised the Open Banking payment gateway provider's Refund API, enabling automated, real-time refund transactions with minimal operational overhead. This includes advanced error handling & recovery mechanisms, API request failures, and declined transactions with actionable error codes.

User Interface (UI) Enhancements for a Frictionless Experience

To deliver an intuitive and seamless payment experience, NetRemit optimised its UI/UX by:

OneClick Payment Button: A strategically placed "Pay with OneClick" button was embedded within NetRemit's platform, allowing users to initiate payments instantly with minimal input.

In-App Redirection and Secure Payment Processing: The UI was designed to keep users within the NetRemit ecosystem throughout the payment journey, reducing transaction drop-offs caused by third-party redirections.

Enhanced User Authentication Experience: Bank-level security authentication (biometric, OTP, or secure PIN) was integrated into the UI flow, minimising payment friction and improving transaction success rates.

Solution Implemented: Open Banking Integration with NetRemit

Robust Security Framework

To deliver an intuitive and seamless payment experience, NetRemit optimised its UI/UX by:

End-to-End Encrypted Data Communication: All interactions between NetRemit and the Open Banking payment gateway provider were secured using TLS 1.2+ encryption, HMAC-SHA256 signatures, and tokenised authentication to prevent data breaches.

Zero Credential Storage Policy: Customer banking credentials were never stored within NetRemit. Authentication and payment authorisation was exclusively handled by the user's bank via secure Open Banking authentication flows.

Regulatory Compliance: The integration aligned with industry-leading security frameworks, including PCI DSS Level 1 for fallback card transactions, GDPR and PSD2 mandates on customer data protection, Open Banking security standards (FAPI & OBIE guidelines), and anti-fraud mechanisms through real-time risk analysis.

Testing and Validation

Before deployment, the team conducted extensive multi-layered testing cycles to ensure flawless implementation, covering:

Solution Implemented: Open Banking Integration with NetRemit

End-to-End Payment Flow Testing:

Transactions were verified to ensure seamless progression from initiation to settlement, supporting real-time fund disbursements.

Edge Case and Failure Scenario Testing: Various real-world challenges, including network disruptions, bank API downtime, payment retries, timeouts, and multi-regional bank transactions, were simulated.

Deployment and Continuous Monitoring

Following successful validation, the integration was securely deployed into production. To maintain uninterrupted operations, NetRemit implemented real-time monitoring and alert mechanisms, including:

Real-Time Transaction Tracking: A dedicated monitoring system was deployed to oversee live payment activity, reconciliations, and error trends.

Automated Alerts and Incident Management: AI-powered alerting mechanisms were set up to instantly flag anomalies, failed transactions, or system performance issues, ensuring swift resolution.

Ongoing Compliance and Regulatory Adherence

As Open Banking regulations continued to evolve, NetRemit established a structured regulatory compliance framework to ensure:

Solution Implemented: Open Banking Integration with NetRemit

Continuous KYC/AML Adherence: Transactions were continuously monitored to detect and prevent fraudulent activities, money laundering, and compliance violations.

Data Privacy & Protection Standards: NetRemit adhered to stringent GDPR, PSD2, and regional data protection mandates, ensuring secure handling of user data.

Alignment with Open Banking Regulations: A proactive regulatory stance was maintained to ensure all enhancements complied with the latest Open Banking standards.

Key Considerations During Implementation

Throughout the integration, the team carefully considered:

API Documentation and Technical Specifications: Adhering to the Open Banking payment gateway provider's OneClick API documentation for accuracy and seamless functionality.

User Experience Optimisation: Ensuring an intuitive payment journey with minimal steps and friction.

Bank Compatibility: Verifying that the Open Banking payment gateway provider supported all key banks within the MTO's target regions.

OUTCOME: TRANSFORMATIVE IMPACT OF NETREMIT'S OPEN BANKING INTEGRATION

The integration of NetRemit with Open Banking payment gateway has revolutionised payment processing for the leading remittance service provider in the UK, addressing critical inefficiencies, strengthening security, and significantly reducing operational costs.

By shifting from traditional payment networks to a modern, API-driven Open Banking framework, the provider now benefits from seamless automation, real-time settlements, and enhanced regulatory compliance, ultimately elevating both operational efficiency and customer satisfaction.

Let us explore the transformative outcomes delivered by NetRemit's Open Banking integration:

Core Payment Processing Enhancements

Instant & Faster Settlements - Transactions are now processed in real time or within the same business day, eliminating T+1/T+2 settlement delays. This ensures faster fund availability, improving both liquidity management and customer satisfaction.



Reduced Liquidity Requirements

With settlements occurring instantaneously, the need for holding large capital reserves is significantly reduced, allowing the business to optimise working capital and reinvest funds efficiently.



Outcome: Transformative Impact of NetRemit's Open Banking Integration

Minimised Chargeback Risks

The transition to push-based Open Banking payments has eliminated chargeback disputes, mitigating fraud-related losses associated with card-based transactions.

Lower Transaction Fees

By bypassing card networks and intermediary banks, Open Banking facilitates direct account-to-account transfers, reducing processing costs while enhancing transaction efficiency.

Competitive FX Conversion

Seamless integration with FX service providers enables dynamic currency conversion, ensuring the best exchange rates while mitigating foreign exchange volatility risks.

Technical and Integration Advancements



Seamless API-Driven Integration

NetRemit's flexible API-first architecture accelerates integration with Open Banking providers, allowing for quick deployment and interoperability with existing systems.




Optimised Mobile Payment Experience

By leveraging biometric authentication and secure mobile banking logins, transactions are processed with minimal customer friction, improving success rates while reducing abandonment.

Outcome: Transformative Impact of NetRemit's Open Banking Integration

-  **Real-Time Payment Confirmations**
Immediate transaction acknowledgments eliminate uncertainties, ensuring greater transparency and an improved customer experience.
-  **Automated Exception Handling**
AI-powered error-handling mechanisms reduce manual intervention, allowing transactions to be reprocessed seamlessly, minimising disruptions in payment flows.

Operational and Regulatory Benefits

-  **Streamlined Reconciliation**
Automated real-time data synchronisation between banks and remittance platforms eliminates manual reconciliation delays, ensuring accurate financial reporting and improved settlement processes.
-  **Enhanced Security & Fraud Prevention**
Advanced encryption, two-factor authentication (2FA), and AI-driven fraud monitoring ensure bank-grade security, reducing the risk of unauthorised transactions.
-  **Regulatory Compliance Simplification**
By aligning with PSD2, KYC, and AML standards, Open Banking transactions minimise reliance on legacy card scheme compliance frameworks, simplifying operations while enhancing regulatory adherence.

Outcome: Transformative Impact of NetRemit's Open Banking Integration

Business Growth and Customer Experience Enhancements



Higher Conversion Rates

A faster, frictionless checkout process with secure bank authentication has led to increased transaction approvals, reducing cart abandonment, and boosting overall remittance volumes.



Improved Customer Trust & Satisfaction

Transparent, secure, and direct-to-bank payments enhance customer confidence, fostering stronger brand loyalty and repeat transactions.

Financial & Cost Optimisation



Reduced Operational Overheads

The automation of payment processing, reconciliation, compliance, and fraud detection has significantly lowered administrative costs for the service provider, reducing reliance on manual processes.



Greater Financial Control

With real-time insights into transaction flows and liquidity, it helped the service provider to make informed financial decisions, allocate his resources more effectively, and reduce cash flow bottlenecks.



CONCLUSION

Our comprehensive payment gateway integration for the leading remittance service provider in the UK has transformed their payment operations, addressing key challenges such as delayed settlements, manual reconciliation, and chargeback risks. By leveraging NetRemit integrated with Open Banking payment gateway, the provider now benefits from real-time fund verification, instant transaction status updates, and automated reconciliation—enhancing operational efficiency and financial accuracy.

The transformation of this leading remittance service provider is a testament to the game-changing impact of Open Banking in the cross-border payments landscape. With NetRemit's Open Banking payment gateway integration, businesses can achieve unmatched efficiency, cost savings, and compliance readiness, positioning themselves as frontrunners in the global remittance market.

With our cutting-edge payment infrastructure, AI-powered risk management, and seamless compliance automation, we help businesses optimise payment processing, enhance customer experience, and maintain a strong competitive edge.



We are here to help you



macro global[®]
creating value through innovation

Please click on the web link below to access our sales desk telephone numbers and email and we will be in touch straight back to you.



<https://www.macroglobal.co.uk/contact-us/>



Macro Global (MG) is the trading name of Macro Infotech Limited, Inca Infotech Ltd & Macro Technology Solutions Pvt Ltd. Macro Infotech Limited & Inca Infotech Limited have Registered Office at 25, Cabot Square, Canary Wharf, London – E14 4QZ and these companies are registered in England & Wales under the registration number 06477763 & 04017901.