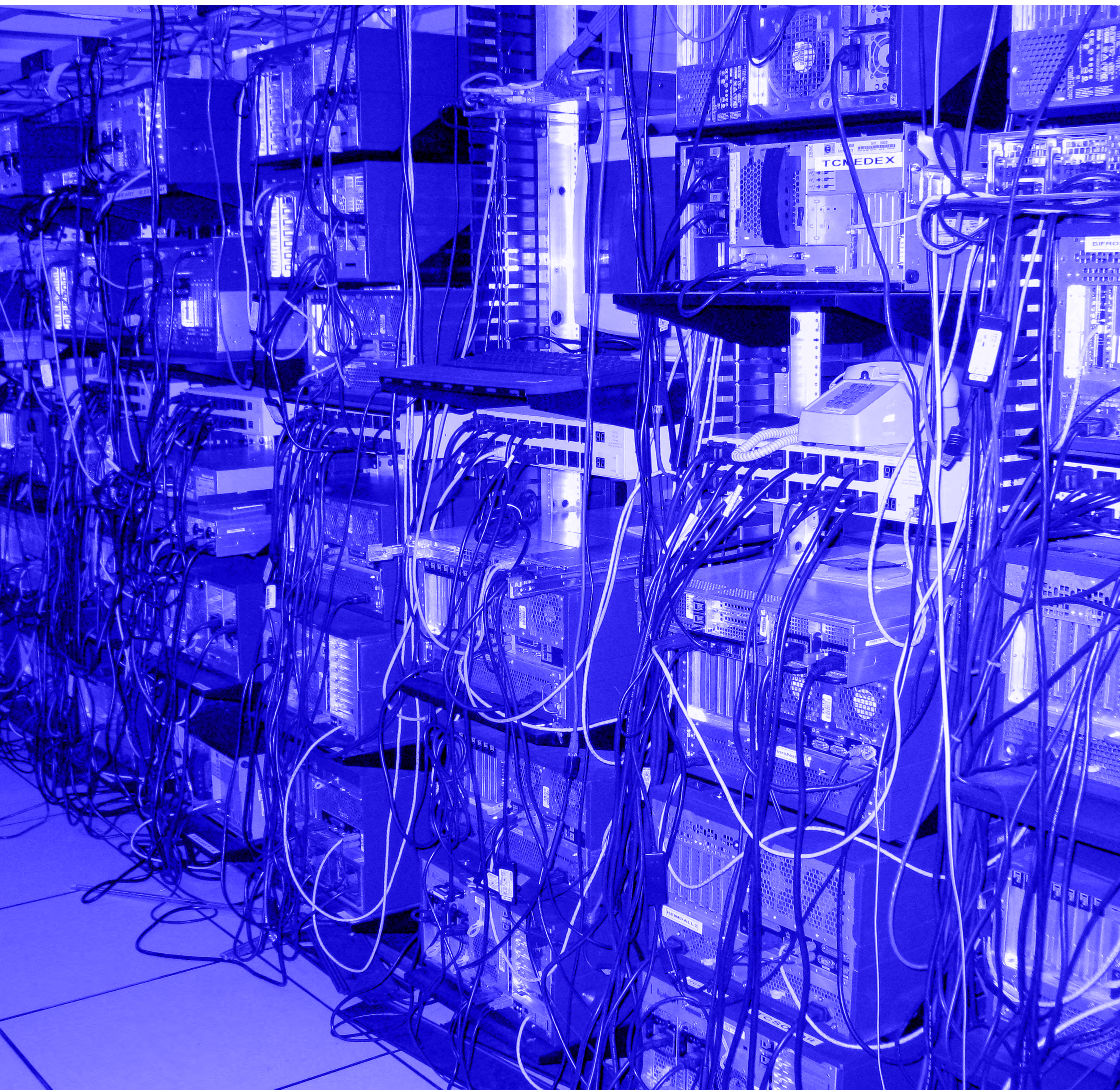


# How to solve banks' legacy system challenges while controlling risk.



***As banks world-wide struggle with technology debt and outdated systems, Radi El-Haj, CEO of RS2, explains how banks can move from patch-ups and piecemeal upgrades to deliver fully efficient, modern digital experiences for their customers, plus a quantum leap in operational performance.***

As time goes by, it becomes increasingly clear that banks have yet to come to grips with the gulf between their outdated core systems and the pace of societal and technological change brought about by the digital revolution. A staggering 70 cents in every dollar of bank IT budget<sup>[1]</sup> is spent on patching up old systems, rather than investing in innovative customer experiences that will drive new revenues and improve profitability.

Bad as they are, low levels of innovation and poor customer experiences are not the only negative impacts of this problem. Out-of-date systems also make banks less efficient and make it harder for them to keep pace with innovation. Some banks have decided that the addition of new features and functions is the solution, in a process known as “patching”: however, this has left them with fragmented platforms which are incapable of sharing data to deliver a 360-degree overview of the customer experience. And that, in turn, limits the bank’s capacity to gain insights about customer behavior that might help them drive more customer engagement and improve efficiency.

## **Build, buy or partner – a false debate?**

Historically, discussions on how to address these challenges have centered on whether to build, buy, or partner when implementing new technology systems. However, this debate fails to address two critical factors. The first is the issue of managing business continuity and mitigating risk. If a bank chooses to completely overhaul its systems using the “rip and replace” method, it will find itself managing significant levels of operational risk given the need to test and prove their new system not just at the level of individual products or interfaces, but the capacity of these elements to interact with each other. By contrast, banks that enhance their systems using a phased implementation strategy are able to ensure a smooth transition for their ongoing operations while modernizing systems for maximum business benefit.

Even if banks make the right decision and opt for the gradual modernization of their systems, this work must be closely focused on priority areas that deliver maximum value for the lowest cost. Without precise targeting, incremental improvements will not achieve optimal results.

This white paper outlines how banks can retain their core transaction authorization systems while strategically implementing powerful enhancements through an AI-enabled orchestration layer. This approach ensures meaningful improvements that will optimize performance, minimize costs, and drive operational excellence.

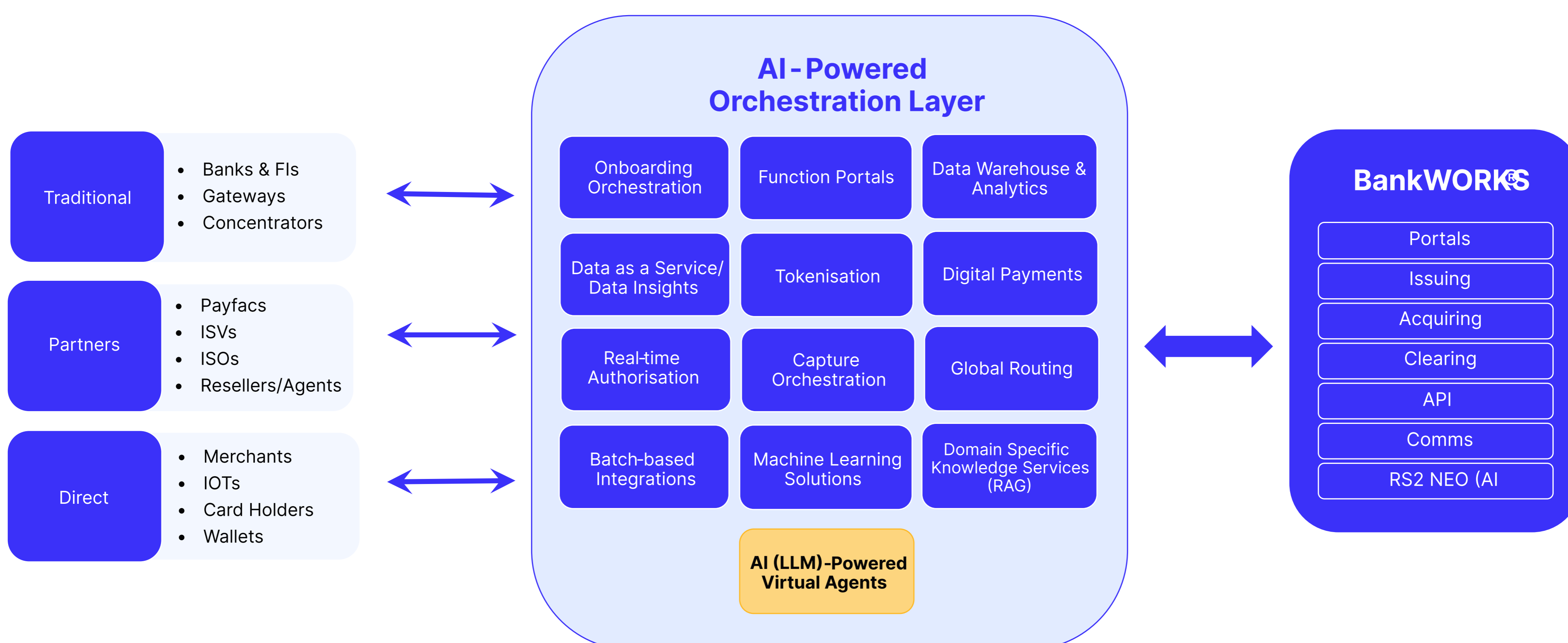
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[1] McKinsey & Co, 2 December 2024: “AI for modernization: faster, cheaper, better” : <https://www.mckinsey.com/capabilities/quantumblack/our-insights/ai-for-it-modernization-faster-cheaper-and-better>

## How to solve banks' legacy system challenges while controlling risk.

## How AI-enabled orchestration layers transform banking

### RS2 Orchestration Platform



By introducing an AI-enabled orchestration layer, banks effectively create a central intelligence hub that links all their platforms and delivers optimal performance across the board thanks to data-sharing and access to a centralized set of metrics. This includes all banking platforms, from card management, user experience, ledgers, and external third-party integrations, through to billing and settlement, interchange, scheme fees and reconciliation.

Examples of the kinds of service enabled by a dynamic orchestration layer include:

### Intelligent transaction routing: reducing declines, improving conversions and optimizing cost.

By leveraging machine learning (ML) models, AI-enabled orchestration layers deliver dynamic transaction routing based on network availability to ensure transactions are routed via optimal paths. This includes reducing processing fees and foreign exchange costs to deliver the best possible price per transaction, as well as identifying high-risk transactions before declines occur to ensure the lowest number of failures. ML models also help prevent fraud in real time without disrupting genuine transactions, reducing friction and maximizing transaction approvals.

### Fraud detection and risk scoring: lower fraud, fewer chargebacks, better compliance.

AI-driven fraud detection enhances security by identifying unusual transaction patterns and analyzing spending behavior in real time. Through the process of generating a dynamic risk score for every transaction, escalated authentications (including steps such as biometric authentication) can be triggered automatically, reducing friction and transaction time delays to a minimum.

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### **Real time payment optimization and smart decline recovery: fewer failures, higher revenues.**

By predicting and preventing declines caused by fraud filters, issuer constraints, or insufficient funds, an AI-enabled optimization layer can recommend alternative payment methods in real time, whether that's inviting the user to retry with another card or automatically requesting an escalated authentication. These steps reduce the transaction failures and friction that cause consumers so much inconvenience, while improving conversions, driving higher revenues and improving the customer experience.

### **Merchant and customer insights: increase engagement, boost turnover, enable insights.**

Banks that embrace AI analytics at the heart of their systems gain deep insights into customer behavior and merchant activity. Thanks to these insights, banks can empower their merchants to create personalized offers and rewards based on customer behavior, as well as offering merchants competitive pricing based on insights, or special fee offers based on most frequent transaction types. Banks can also provide merchants with predictive analytics about when customers are likely to churn, and analyze customer engagement patterns to help merchants retain their clients. These factors help merchants to improve their turnover and profitability, as well as enhancing customer loyalty.

### **Automated compliance and regulatory reporting: lower risk and cost, simplified compliance.**

Regulatory compliance is streamlined through AI-driven automation, whether that's real-time AML (Anti-Money Laundering) and KYC (Know Your Customer) checks, or automated suspicious transaction detection and reporting. Regulatory reports can also be generated automatically, reducing further manual interventions and HR costs associated with compliance.

### **Predictive analytics for operational efficiency: higher uptime, enhanced reliability, optimal resource usage**

AI-driven predictive analytics can improve the resilience of your entire banking platform and prevent system failures by detecting issues before they become problems. For example, RS2's AI platform helps optimize server allocation to cope with high transaction volumes, as well as identifying performance bottlenecks before they impact operations.

### **AI chatbots and virtual assistants for customer support: lower support costs, higher satisfaction**

As part of the overall application of AI to all aspects of your bank's operations, AI-enabled chatbots can provide real-time customer support that supports the rapid resolution of customer enquiries, from the management of disputes such as processing chargebacks, through to a conversational AI-powered virtual assistant for merchant and customer support.

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## **Using AI to drive transformation in your bank: full security and compliance, optimal performance**

Almost all banks are understandably worried about data security and compromise when adopting technologies that rely heavily on AI. While AI promises substantial cost efficiencies, banks are concerned that sensitive financial data could be harvested by third-party organizations outside the industry. RS2's AI-enabled orchestration layer directly addresses this concern by implementing a self-hosted AI framework that ensures full control over data security by ringfencing sensitive transaction data within a Virtual Private Cloud (VPC).

The system uses no external AI models or third-party data processing, eliminating the risk of data being shared outside the financial ecosystem. Furthermore, RS2's AI has been designed specifically for the financial industry, leveraging more than thirty years of expertise in secure payments processing. These security features enable banks to leverage AI's power without compromising security, which in turn ensures regulatory compliance and the integrity of customer's sensitive financial data.

RS2's AI-driven orchestration layer reduces operational risk by maintaining a structured, phased modernization approach. At the same time, core system processes are optimized, and costs and fees are reduced to a minimum thanks to the intelligent optimization of acquiring, FX, and processing costs. Banks can consolidate messaging between platforms, creating a single messaging framework based on the ISO20022 standard ahead of the November 2025 industry deadline. This single messaging framework delivers a centralized overview of all transactions and system performance and helps to streamline compliance and reporting functions.

## **AI-enabled banking transformation is the future.**

All banks recognize the burden of technical debt which is the result of their continued reliance on legacy systems. While much of the industry debate has focused on whether to build, buy, or partner, this perspective overlooks the fundamental risks of system disruption and inefficiency caused by any of these options. RS2's AI-enabled platform orchestration methodology is a breakthrough approach, which uses self-hosted AI developed with decades of experience in banking to enhance system performance, reduce costs, and optimize existing tech stacks without exposing sensitive financial data to external entities.

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**To discuss RS2's revolutionary AI-enabled orchestration layer, contact:**

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