ByteDance uses real-time infrastructure to deliver best-in-class user experience

Adam Smith Awards
Winner - Harnessing the Power of Technology in Asia

ByteDance leveraged leading-edge technologies and virtual account management to streamline cash management for global users to receive real-time payments.

About

Founded in 2012, ByteDance’s mission is to inspire creativity and enrich life. With a suite of more than a dozen products, including TikTok, Helo, and Resso, as well as Toutiao, Douyin, and Xigua that are specific to the Chinese market, ByteDance has made it easier for individuals to connect with, consume, and create content. The firm’s apps are now available across 35 languages and 150 markets, which includes key markets in China, Japan, South Korea, Brazil, the U.S., Europe and Southeast Asia.

The challenge

A key feature of ByteDance’s business model is offering cash rewards to encourage the contribution of high-quality videos from its platforms’ users, content producers and influencers. With great content, ByteDance can increase its user base to drive more advertisers and revenue.

But ByteDance’s treasury team became challenged by the growing volume of payment transactions from its apps like TikTok that gained global fame and success. A few key pain points included:

- Limited pay-out options available to individual users, which primarily occurred in e-wallets that lacked immediate and direct bank account settlement.
- Lack of visibility into payment status and long settlement cycles, which impact ByteDance’s cash management efficiency and user experience.
- Maintaining multiple accounts for its many lines of businesses and their respective pay-out programs, which are costly, complex and highly manual.
The solution

ByteDance sought an integrated solution to enhance its payment channels and processes. This solution improved operational workflows to support its fast-growing global business while maintaining a best-in-class content producer and influencer experience – which remains its number one priority.

In support of this goal, ByteDance enlisted J.P. Morgan to develop a comprehensive payment solution, with the comfort and convenience of its users front and centre. The following are the primary features of the solution.

- **Building a real-time payments infrastructure:** J.P. Morgan built a real-time payments infrastructure into ByteDance’s platform that can be connected to local clearing systems. This allows users, content producers, and influencers to be paid instantaneously and directly into their bank accounts at any day or time. This functionality can replace payments routed through e-wallets, which require users to manually move the payments into their respective bank accounts. ByteDance has enabled this capability in the U.S. and Europe, meaning it covers approximately one-fifth of TikTok’s 1 billion active users worldwide.

  In addition, ByteDance has also introduced automated clearing house (ACH) capabilities to the wider EMEA markets where real-time payments connectivity isn’t enabled. This allows users access to local low-value clearing systems that also pays directly into their bank accounts, which lowers costs for both ByteDance and its users.

- **Leveraging APIs for real-time data exchange, track and trace:** With J.P. Morgan’s support, ByteDance also overhauled its host-to-host connectivity with banks, replacing it with application programming interfaces (API) connectivity that allows real-time exchange of data between ByteDance and J.P. Morgan.

  With the real-time exchange of data, ByteDance can track and trace the end-to-end status through the SWIFT network, see and monitor payments, and allow users to check for payments via their TikTok or other ByteDance apps in real time.

- **Deploying J.P. Morgan’s Virtual Account Management (VAM) cash management and liquidity tool:**

  Virtual Account Management has elevated and further future-proofed ByteDance’s cash management through a centralized account structure covering all 15 businesses. VAM also provides segregation, affording automated reconciliation, visibility and control over payments, and sizable cost savings.

  This structure also helps ByteDance identify the collections for its various apps with ease, so its treasury team is empowered to review the sales performance and provide revenue forecasts. The VAM structure has also eliminated the need to manually reconcile hundreds of physical accounts, which frees up resources and achieves account rationalization and operational efficiency.
DIGITAL INNOVATION

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“We have reduced our transactions costs 10-fold thanks to the real-time payment facilities, and users are now paid instantaneously, versus two business days in the past.

With VAM, we have also migrated our 500 physical accounts into a virtual structure, eliminating the costs of maintaining the accounts, enhancing visibility and streamlining reporting.”

-Paul Yin, Global Payments Director of Operations, ByteDance

The Results

By combining the latest innovations, the bespoke solution developed has delivered the following benefits for ByteDance:

- **Diversify payment methods** with access to multiple local clearing networks, helping the business expand into over 30 markets, and cover millions more users with the optimized solution
- **Grow rapidly** with business growing by 10-fold without the need to add headcount as the integrated payment and VAM solutions have greatly enhanced operational efficiency.
- **Pay users instantaneously** compared with about T+2 previously
- **Access global clearing systems and SWIFT GPI network** enabling Bytedance’s internal bank transfers to be delivered within five minutes
- **Reduce transaction costs** by ten times as a result of the real-time payment and ACH facilities
- **Maintain one centralized bank account** across all 15 businesses to enhance liquidity efficiency, improving visibility, control and forecasting
- **Automate account booking and reconciliation** with 500 physical accounts migrated into the VAM structure, further reducing headcounts from four to two

“By harnessing the power of technologies like APIs and the real-time infrastructure that we have built, ByteDance is able to both streamline its operations as well as deliver on its number one priority of providing an exceptional user experience for its content producers and influencers worldwide – ensuring they are paid in the most efficient and timely manner.”

-Sridhar Kanthadai, Managing Director and Head of Payments for Asia Pacific, J.P. Morgan

To learn more about how we can support your business, please contact your J.P. Morgan representative.