Merchant Payments Operations

A GLENBROOK
PAYMENTS VIEWS SERIES

Payments Views is Glenbrook's commentary and opinion blog written by members of the Glenbrook team.

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Introduction
By Drew Edmond, June 2023

Understanding a merchant's business strategy at its core is pretty simple. They want to make more money through sales and reduce their underlying costs. In order to complete a sale, a merchant needs to accept payment for the good or service they are selling.

Why Does a Merchant Need a Payment Acceptance Strategy?

In many businesses, payment acceptance is seen as a cost center. The only goal is to find the lowest-cost payment provider, enable the acceptance of cards and maybe a digital wallet, and hopefully renegotiate on price as volume increases over time.

Sophisticated merchants understand that an optimized payments experience and payments environment is one of the most important strategic differentiators they can use in pursuit of their core goals of driving incremental sales and reducing underlying costs.

How is Payments a Strategic Differentiator?

A merchant should be laser-focused on the end-to-end journey a customer can experience when interacting with their business. The purchasing experience is critical to making a sale: this is when the customer is actually trying to pay! There are a number of questions that arise before, during, and after a transaction occurs that a merchant can address:

- Is the item or service priced in the customer's local currency?
- Can the customer pay using the payment instrument they prefer?
- Do they have confidence that their payment credentials will be secure?
- How much information do they need to provide during the checkout process?
- How long does the checkout process take?
- How long does it take for the actual payment to be processed?
- If it is a cross-currency payment, do they know how much they will be charged?
- How quickly will they get their money back if they ask for a refund?
- Are any discounts being applied properly?
- If it's a subscription, when will the card be billed again?
- What will show up on the bank statement? Will they recognize it?
- If a fraudster uses their card on this website, will the merchant recognize it as fraud and decline it? If not, will the customer have a negative connotation with this merchant?
- What happens if the payment is declined? What is causing the decline?

This is just a sample of the many opportunities where a customer can have a bad experience during the purchasing process, which can lead to not only a lost sale but a customer that never returns again. To avoid this, merchants should develop a robust payments acceptance strategy and payments environment that maximizes sales while controlling underlying costs.

What Does a Robust Payments Environment Look Like?

The correct payments environment is going to be different for every merchant. Glenbrook works closely with all of our merchant clients to identify their key organizational objectives, which informs the decision-making approach to developing a custom payments environment.

At its core, a robust payments environment often includes the following core elements:

1. A **payments team** that is educated on payments best practices and trend that directly owns or works closely with payments product, payments engineering, and adjacent teams like compliance, legal, and finance

2. An **architecture** that consists of the best payment provider(s) that meet the merchant's needs, with a security and tokenization strategy that reflects the merchant's available resources

3. An appropriate **risk management and controls strategy** to mitigate risk and fraud

4. The use of **payments processing best practices** to increase the number of successful transactions while remaining compliant with network operating rules and local laws and mitigating risk

5. A **risk operations** team that can manage transaction fraud and chargebacks

6. Accessible and available **payments data** that can be used for analysis that leads to ongoing beneficial outcomes, such as increased sales or reduced costs

7. **Financial reporting** processes that are automated where possible

Why Should I Read This?

Embarking down the path of developing your own payment strategy can be daunting. This book includes a series of articles that can help. More specifically, the framework we describe in these articles will help identify areas in your own payments environment where you may need to focus.

The insights shared in the book are based on our experiences - both operating at payment acceptors and payment providers, and through decades of consulting engagements. If you "don't know what you don't know", please reach out to us - we would be happy to support your efforts.

Assessing a Merchant's Payments Operations

By Kavita Jiandani, November 2019

I am often asked if Glenbrook Partners is a payments education company, and if I teach. My answer to both is yes. Our education programs are designed to give attendees a stronger payments foundation on which to build and refine their corporate strategies, product development efforts, and operational functions.

We're also very much a payments strategy firm. Here, I will focus on some of the ways we help merchants improve their payments strategy and operational effectiveness.

First, we like to take a deep dive into a merchant's current setup. We take a comprehensive view of a broad range of elements, such as company and payments roadmaps, payments KPIs (key performance indicators), customer pain points, and more. We become as intimate with the merchant's payments business as possible to develop an inside view while maintaining our outside perspective.

The key assessment areas that we focus on are:

Core Payment Processing

Architecture. Glenbrook assesses payments architecture for its ability to scale up volume and support new methods of payment, new business lines and geographies. We examine the use of third-party providers in the system, and internal or external gateways, with a bias towards a service-oriented architecture. We also look for any critical points of failure that can affect system availability and consequently customer conversion.

Operations. We evaluate the core functions that support the ongoing management of the payments business including customer support, site reliability engineering (SRE), and back-office operations related to disputes and fraud management.

Conversion. A customer's smooth and successful completion of a purchase is the goal of a merchant's payments operations. However, friction at the point of interaction may result in decreased conversion, lead to loss of revenue for the merchant, and a poor customer experience. Analyzing the end-to-end checkout flow is critical to identifying areas of opportunity, in both the customer experience and back-end payment processing.

Partner Performance Assessment

The main focus here is to assess whether the incumbent payment providers are acting as good partners to the merchant. This can take many forms across a broad array of indicators including account management support for commercial, product, and operational needs. Our assessment of partner performance may lead to the addition of a new payments provider in order to install a champion-challenger model. We may recommend going to RFP to swap out a currently under-performing provider.

Developmental Stages of Merchant Payment Operations

There are three distinct stages of merchant payments evolution:

1. **"Get me going"-** This phase, typical of startups, just about getting paid. Providers like Braintree and Stripe serve young, developer-focused companies through quick and simple to onboard and integrated solutions, complete with comprehensive documentation, self-help support, and straightforward integration and operation.

2. **"Help me scale"-** After cutting its teeth in payments, the merchant now has built its business, and, if the stars have aligned, is experiencing the sweet taste, and tribulations, of high growth. What does scale look like now? It could take many forms: the obvious volume growth, geographic expansion, or even the addition of new lines of business.

3. **"Help me optimize"-** Armed with war stories, and the wiser for it, these merchants desire to generate new efficiencies from their payments business units, often asking questions such as:
    - Am I using payments as a competitive moat?
    - Are my operations best in class?
    - How do I rate myself against other comparable businesses in the industry?

Glenbrook helps merchants in the latter two stages of their payments evolution. No matter where you are in your payments journey, however, it’s important to step back periodically and check to see if the engine simply needs an oil change or if a major overhaul is in order.

Risk Management and Security
We look to understand a merchant’s risk appetite, architecture, common vulnerabilities, and controls. Each merchant’s risk profile is unique, and the optimal structure for managing risk varies across vertical and company size. We assess the organization’s risk management IQ, key risk metrics, use of third party vendors, and operational processes.

Accounting and Reconciliation
Critical back office functions, these important steps ensure that partners are crediting the merchant as promised, that the books on refunds and chargebacks are balanced, and that partners are charging the merchant appropriately. We probe to assess the types of reconciliation performed and review exception management processes.

Reporting and Analytics
It is often said, “If you don’t measure it, you can’t manage it”. Transaction processing cost, user conversion rates, and platform health metrics are important KPIs that must be monitored to effectively manage a payments operation. Depending on the nature of the business, unique KPIs may be required.

Organizational Structure
One of Glenbrook’s partners likes to identify who the merchant’s “payments czarina” is, the individual who champions the best interests of a company through the strongest possible payments offerings. Well-intentioned firms often identify this role informally; the best have it formalized. Clear ownership of success metrics in the areas of customer Net Promoter Score, revenue growth, and profitability is necessary to run a successful payments business. In general, we look for dedicated support across all payments functions to maximize efficiencies and increase competitive strength.

While we assess more aspects of a merchant’s business, this post illustrates the key areas we know are essential to merchant payments operations. In the weeks and months ahead, we’ll take a deeper dive into each of these areas.

Reporting & Analytics

By Drew Edmond, February 2020

In Kavita Jiandani's post "Assessing a Merchant's Payments Operations", she introduced Glenbrook's methodology for our in-depth assessment of a merchant's payments operations. In her introductory piece, Kavita highlights the major Key Assessment Areas we evaluate during each engagement.

In this Payments Views entry, I continue with a focus on one of the Key Assessment Areas: Reporting and Analytics.

The ability to monitor performance and identify operational anomalies is essential. Measuring trends of the key performance indicators (KPIs) of a merchant's payment operation is just one benefit of a comprehensive reporting and analytics platform. Besides dashboard and report-based monitoring, the ability to perform ad-hoc analyses assists with troubleshooting operational issues and supports response to inbound questions from other teams within the organization.

Critical attributes of a successful reporting and analytics system include:

Access to Data
Before a merchant can start thinking about building dashboards and standard reports, a critical, and not always easy, first step is to ensure they have access to the necessary data. When Glenbrook starts a merchant assessment, we ask the merchant to provide us with a variety of data points to help shape the engagement's focus. How long it takes us to receive that information, and the data quality underlying it, is often the first indicator of how well the merchant is managing its data resources. The longer it takes, the more work we need to do.

Data Storage
Most sophisticated merchants ingest payments data from all relevant sources: acquirers, gateways, PSPs, fraud solutions, and more, and store it in an internal data warehouse. Ideally, this data is normalized to other business data in order to simplify analyses across multiple data sets. Payment providers may not provide the exact data needed by default. It is important that the merchant work with its data partners to make sure the needed data is provided. Due to the increasingly low cost of data storage, we recommend erring on the side of storing too much data, rather than too little.

A Centralized "Single Source of Truth"
The data warehouse serves as the "single source of truth" to ensure the organization operates using a comprehensive view of its payment operations. In parallel, the warehouse also includes data from all business lines, a not always simple task for large organizations with multiple LOBs grown organically or via acquisition. Global operation further complicates the task. Decentralized, siloed data storage and management makes measuring and managing Key Performance Indicators much more difficult.

Alternatives to On-site Storage
Building and maintaining an internal payments data warehouse may be considered too long-term a project for an organization. An alternative is to work with a third-party provider that ingests all of your payments data directly from each of your provider's feeds. This approach can remove the complexity of data warehouse implementation and management. The in-house team is freed up to focus on dashboard and report development.

If you decide to use one of these third-party data storage providers, make sure your contract states that you own all of the data and have full rights to migrate it to another party or into your in-sourced data warehouse should the need arise.

Key Motivators for Managing Payments Data

The dashboards and reports designed to monitor KPIs must support the following goals:

Maximize Revenue
First and foremost, merchants want to make sales. In this category, we want to monitor authorization rates and identify reasons for declined payments, as declined payments represent lost sales and increased customer churn.

Granularity matters. Merchants may need to examine and segment approval rates by tender type, business line, card brand, card type, issuer, geography, acquirer, and across other factors. Sophisticated merchants able to analyze these factors may then optimize routing decisions across multiple acquirers in order to maximize revenue.

Manage Costs

At some point in the evolution of a merchant from start-up to established business, they will take a look at the costs of payment acceptance to identify ways to reduce them. Depending on the structure of their merchant agreement, merchants have multiple costs to track. There may be fixed and variable costs for each transaction, such as gateway fees, interchange, network assessments, and processing fees. There are also non-transaction fees such as tokenization costs, chargeback fees, or hardware fees.

Transaction Fees	
Authorization	Fixed
Settlement	Fixed
Gateway	Fixed
Address Verification Service	Fixed
Fraud Detection	Fixed
Acquiring Mark-up	Variable
Interchange	Variable
Network Assessments	Variable
Non-Transaction Fees	
Chargebacks	Fixed
Tokenization	Fixed
Statement	Fixed
Hardware	Fixed
PCI Service/Non-Compliance	Fixed
Additional Services	Fixed

Such cost tracking is a core outcome of a strong reporting and analytics capability. The merchant’s dashboard should provide a top level of view of these costs, having parsed provider statements, with the ability to drill down in order to track and analyze individual cost components. In order to make informed decisions about payment costs, merchants should measure all-in transaction costs across all tender types in order to build a baseline understanding of their true cost of payment acceptance.

For example, consider the costs associated with interchange downgrades. Some acquirers can help with this, but many currently monitor these additional costs on a quarterly basis. For high-volume merchants, we recommend interchange be monitored daily to determine whether estimated interchange costs match the actual settled interchange fees. Bugs and procedural errors by the merchant or the acquirer can lead to unnecessary interchange downgrades and their higher costs. Quarterly monitoring is inadequate.

Minimize Risk
Risk management and fraud prevention metrics deserve their own focus, but for the sake of high-level payment operations, merchants need to keep an eye on their chargeback ratio. At the very least, merchants want to stay out of the card network monitoring programs for merchants with high chargeback ratios. It becomes rather expensive and reveals the existence of serious operational issues. Getting to the root causes and addressing what led to the error is paramount. Strong reporting and anomaly analyses alert the organization to the existence of such problems.

Ensure Data Integrity
Measuring and managing payment operations relies on accurate data. Critical business decisions rely on it; incorrect data can lead to poor decision making and negative outcomes for customers and for the organization. Where possible, organizations should log internal transaction data in order to compare and reconcile it against authorization and settlement data received from their provider. Exceptions generated from this reconciliation process will identify issues that may exist at the merchant or its upstream provider. Dealing with incorrect data from providers can be time-consuming and costly. If necessary, implement terms in your provider's service level agreements to monitor report accuracy, with financial remedies that cover the cost of these mistakes, including the opportunity cost of employee time spent on troubleshooting and remediation rather than their existing priorities.

Manage Platform Performance
It is critical to monitor platform health and to have clear operational processes when performance falls below expectations. Merchants should monitor metrics such as platform availability (uptime), latency (transaction speed), and throughput (transactions or files per second). Contract terms should accurately describe these KPIs and what remedies are available should the provider fail to meet them.

Dashboards and Reports

Dashboards provide an opportunity to monitor and push alerts in real-time to relevant stakeholders, while pre-developed reports streamline the communication of key metrics to various audiences within the organization.

When developing dashboards and reports for managing payments, we recommend adhering to the following principles:

Actionable
Dashboards should be designed with the ability to highlight potential issues without complex manipulation of data. Focus on key metrics across granular dimensions that may expose underlying issues not evident from a high-level view. For example, a chart that shows decline rates on Visa cards may not expose declined transactions on Visa debit cards issued by Bank of America, specifically for transactions between $25 and $50. Dig deep.

Accessible
Data accessibility provides opportunities for all members of the payments organization, and those outside of payments, to become involved in identifying and troubleshooting issues as they arise. Our experience is that spreadsheets, overburdened by data volume, make it difficult for stakeholders to find the data they need.

We recommend using a business intelligence tool (e.g. Tableau and its competitors) to make data manipulation more accessible to non-analysts.

Automated
Dashboards and reports should be rendered automatically for Key Performance Indicators. Manual report generation is time consuming and inefficient.

Thresholds and Alerts
Rather than relying on a human being to check every dashboard and report manually on a daily basis, alerts should be automatically delivered to relevant stakeholders when key metrics associated with a particular dashboard or report pass pre-determined thresholds. For instance, if Mastercard transaction approval rates fall below 88% for over 1 hour, an email is sent to the payments operations and engineering teams or on-call points of contact. The appropriate remediation steps should also be in place and followed to limit the impact of the anomaly. It is important to develop benchmarks for each KPI in order to understand when metrics begin to fall outside of an expected pattern.

Frequency
For each dashboard, report, and/or KPI, determine its measurement frequency. Some metrics may benefit from real-time monitoring, while others can be reviewed quarterly.

Troubleshooting and Operational Processes
Alerts should be paired with an operational process that identifies both the root cause and the sequence of steps necessary to restore or improve the KPI. Depending on the severity of the issue, this process may include multiple stakeholders from different teams within the organization. Development of these procedures is essential.

Partner Performance

By Kavita Jiandani, April 2020

Continuing on our theme of Assessing a Merchant's Payments Operations, in this post let's focus on the critical aspect of Partner Performance.

The goal here is to gauge if the merchant's payment providers are good partners. Having the right set of payments processing partners is a critical factor that can take a merchant's payments operations from good to great.

At this point, competitive pressure has pushed the functional capabilities of many providers close to parity. So, what separates a great partner from a mediocre one?

Let's break these up into two sets of criteria: those to measure an *incumbent* provider, and those for evaluation of a *new* partner.

Incumbent Provider Evaluation

Relationships Matter

Key to the provider's ongoing value is the quality of the relationship with the provider's account manager. Ideally, the account manager serves as an extension of the merchant's own payments team. She is intimately familiar with the merchant's roadmap, current operational issues, top pain points, and goals. She is also honest and direct about the provider's current capabilities and future plans. In this role, she can provide strategic insights tailored to requirements, benchmarks to calibrate the merchant's performance against peers, provide network advocacy, and education to name a few.

It is not hyperbole to say that a good account manager can make or break an existing partnership. Certainly, in our practice, and through feedback on the Merchant Payments Roundtable®, we've seen multiple examples where a merchant refuses to renew the incumbent's contract because of poor account management.

Let's examine this relationship and role in greater detail:

1. Strategic Assistance and Insights

Auth Optimization. Auth rate optimization is the new acquirer battleground. Providing solutions to increase approval rates, through product offerings and/or proactive optimization strategies, is a true differentiator in the acquiring space. A nuanced understanding of the differences in a merchant's vertical, type of goods sold (digital goods, vs physical goods), and payments model deployed (subscription, on-demand, card-on-file, trial conversions, freemium, etc.) is key in providing effective advice and solutions to the merchant. Using the champion-challenger model, sophisticated merchants will often measure performance of auth rates over a fixed period of time across their incumbent acquirers in order to route transactions for optimum approval rates.

Business Insights. The degree to which the acquirer is able to interrogate and learn from transaction flow is a differentiator. For example, granular examination will often reveal individual issuers rejecting too many transactions. Increasingly, as acquirers get into the issuing space, they are at a unique vantage point to see the transaction end-to-end and provide actionable insight.

Benchmarks. While not common practice, it is extremely valuable for a merchant to measure its operations compared to its peer group across various metrics such as approval rates, chargeback rates, card type, cost, etc. Acquirers serving merchants in the same vertical can unlock these valuable, anonymized insights.

2. Network Releases, Advocacy, and Impact Assessment

Card networks typically have two compliance releases in a year that may impact merchant/payment acceptor operations. Additionally, advancements in technology and business models have resulted in the creation of several new operational constructs such as marketplaces and PayFacs, each model requiring its own set of evolving rules, network tokenization, new chargeback management models, and more.

A good payment provider helps the merchant understand and respond to the implications of these semi-annual updates, and, where possible, serves as an advocate by serving as the "voice of the merchant" with the networks. In this role, the acquirer can influence the creation of new network rules, and occasionally postpone compliance deadlines when changes could, for example, create a significant burden on merchants' resources. A provider should help clarify the financial or operational impact of network updates.

3. Education and Relevant Trends

Merchant payments leadership is, of course, responsible for knowing what's happening in their industry and its impact on their own operations. Building a robust roadmap while balancing the daily demands of managing operations is a challenge. A proactive payments provider should bring the latest trends and developments in the industry and their implications to the merchant.

Ideally, merchants should be able to look to their acquirers to help them unpack new developments and leverage new solutions. Consider the delay in the network's spring release because of the coronavirus. This delay, shifts in fraud trends, changes to chargeback response times, will all impact merchants. Timely dissemination of changes and evaluation of their implications to the merchant is critical. Data-driven insights, such as changes in contactless usage or shifts in online commerce across a provider's portfolio, might help merchants adjust their priorities and business models.

4. Relationship Management

The value a good account manager brings to a relationship is unquestionable. Strong relationship management practices strengthen ongoing operational activities such as chargeback management, settlement rejects, data violations, etc.. Managing these operational aspects can make mundane work delightful, efficient, and reveal opportunities for improvement.

The acquirer's Quarterly Business Review (QBR) is a powerful tool when used well. Instead of a checkpoint on the calendar, a good QBR is the vehicle to exchange roadmaps, brainstorm "over the horizon" initiatives, and review and refine operational processes. This adds value well beyond providing a pulse check on the merchant's KPIs.

Strong relationship management practices recognize the increased demands of a growing business. They deliver proactive recommendations to address the merchant's evolving operational, product and strategic fronts.

The New Partner

We've written about how an acquirer can keep a customer. When choosing a *new* provider, at a high level, the assessment criteria cover three broad areas:

- Available functionality
- Operational construct
- Commercial terms

Of course, vetting a provider's track record through reference checks with existing customers generates valuable insights.

This kind of evaluation is, itself, a lengthy process that is best conducted with rigor and a deep understanding of acquirer capabilities, and pricing strategies, amongst other things. At Glenbrook, we often assist merchants in choosing new payment providers through an RFP (Request for Proposal) process.

Organization

By George Peabody, May 2020

In Kavita Jiandani's post Assessing a Merchant's Payments Operations, she introduced Glenbrook's methodology for our in-depth assessment of a merchant's payments operations. In her introductory piece, Kavita highlights the major Key Assessment Areas we evaluate during each engagement. In this continuation, we examine the impact of the payments organization and the company's "money team."

How a merchant manages its payment operations has an outsized influence on profitability as well as customer experience. In this continuation of Glenbrook's series on Assessing Merchant Payments Operations we look at common organizational structure and contrast that to the best practices we have found most effective in our payments consulting work.

The Typical Situation - Payments in Silos

All too often, the management and organization of payments acceptance within a large merchant organization is owned by individual business lines or channel teams. Management of the e-commerce channel is a prime example. One of Glenbrook's clients, a grocer, had in-store payment operations owned by a team tightly coupled to its Treasury Management organization while the early stage e-commerce operation was owned by a separate group aligned with Marketing.

This approach is understandable in the rush to bring new and unproven services to market. In the early 2000s, digital transition was in its infancy and the payment volume it represented was, for brick-and-mortar companies, a tiny proportion of overall transaction flow.

That's all changed. The digital channel continues to experience double digit growth and is accelerated by secular trends such as broad smartphone availability and the current pandemic.

Suboptimal Outcomes

As we have seen through many merchant payments consulting engagements, the siloed model has multiple downsides.

- **Poor Choices Lead to High Remediation Costs**. We have seen new business lines make uninformed decisions about their payment and data needs that lead to significant levels of re-work and implementation delay. Forethought and planning prior to vendor selection and deployment would have saved money (new contracts, new POS terminals) and time (more than a year of sub-optimal operation).

- **Reconciliation Challenges**. While many merchants wisely maintain multi-acquirer relationships, uncoordinated payment flows mean that someone in Treasury or Accounting has to reconcile payments processed by different acquirers. We've seen painful Excel-based procedures used to handle reconciliation. This is no longer necessary.

- **Increased Acceptance Cost**. Volume commitments to an acquirer can lower the cost for all business lines. If each business line makes an independent deal, the company as a whole loses potential negotiating leverage based on volume.

- **Poor Acceptance Architecture**. We've seen duplication in payment systems that often comes with increased technical debt and operational management costs that come with redundant maintenance work. Uncoordinated system choices duplicate audit and network update work.

- **Poor Customer Experience**. There are so many ways to add friction or degrade the experience of making a payment, the list is almost too long. Consider:
    - Inability to provide buy-online-pickup-in-store (BOPIS) service
    - Requiring a signature when every card brand has made that optional and unnecessary for chargeback purposes
    - Leaving contactless support off when the capability has been in the POS terminal for three years and more
    - For a Guest checkout, neglecting to take advantage of checkout assistants like SRC or one-click options like PayPal
    - At checkout, not displaying the most recently used card on file for returning customers

- **Weakened Security and Higher Audit Risk**. We have seen rushed implementations and procedures open security holes and increase loss risk and chargeback frequency. Distributed payment responsibilities has resulted in uncoordinated PCI compliance procedures and increased audit expenses.

These downsides can be avoided and remediated. The key is a comprehensive payments strategy for acceptance that centralizes strategic expertise and operational roles.

The Money Team - The Optimal Payments Organization

Centralized management of payments is the essential step in the orchestration of a merchant's diverse payments needs. This approach works. Leading merchants have recognized that payments is a core competency that has a direct bearing on profitability. Payments processes have multiple constituencies. Centralization of payments roadmap, partner management, operations, and analytics establishes a consistent foundation for this essential function. Centralized responsibility across all payment concerns - from multi-channel acceptance to reconciliation and reporting - drives architectural choices that can best deliver reliability, flexibility, risk management, and cost.

Centralized expertise is best able to meet the needs of all and each of them while optimizing the outcome for the entire company.

The Money Team's role is to both serve the payments needs of the organization and to drive requirements for payment handling by all business units.

Metrics Matter - A Focus on Data and Analytics

As discussed in our post on Reporting and Analytics, data drives good decision making. The Money Team makes sure the dashboards and underlying systems are in place to monitor and measure KPIs. Some merchants outsource the data warehousing task and bring the dashboards in-house. There is no one right technical solution. But knowing what KPIs matter and having the data infrastructure in place to generate and share them is key.

A key part of Glenbrook's payments consulting practice is the benchmarking work we conduct to reveal and describe industry best practices. While what works varies by industry and company size, our recommendations on organization are informed by our benchmarking and payments consulting experience with merchants across multiple industries and business sizes.

A Single View on Payment Operations

Payment operations is multi-faceted. Diverse concerns range from transaction speed and authorization optimization to fraud detection and chargeback management. The performance in one area generally impacts adjacent areas in significant ways. Expertise in payments is required to take advantage of positive adjacencies and mitigate the negative ones. Centralization provides operational management the ability to put their expertise to work.

Risk and chargeback management are particular areas that benefit from co-ordinated, if not singular, management.

Vendor Selection and Management

Centralization puts the challenge of partner management into a single group that has the broad view of partner capabilities, synergies, and shortfalls. Selecting the right partner is a multi-step and multi-dimensional process that is merchant-specific. A broader treatment of the incumbent and new vendor review process appeared in our post on Partner Performance.

Expertise and experience is important in vendor selection. For example, service Level Agreements (SLAs) matter. SLAs codify the operational performance expected from a payment partner. Think of them as the KPIs of the partner. Knowing what SLAs to build into a contract matters, too. That said, the financial penalties on the provider don't come close to compensating the merchant's pain due to an offline condition, for example. The reliability track record and service resumption speeds is more important than the penalty clause in any SLA.

Staffing

The good news is that the core staffing dedicated to the Money Team can be modest. Only a handful of FTEs is needed to lead the payments strategy, new payment initiatives, manage operations, data analytics, and risk functions.

That said, leadership support (see below) and resource availability, whether under the payment team's direct control or via matrix-based organization, have to be in place.

Centralized staffing for operational functions, formerly conducted in business line silos, opens up opportunities for staffing development as well as consolidation. Risk and chargeback teams, for example, can enjoy increases in staff expertise through cross-training and exposure to a broader set of operational concerns. Similarly, product, engineering, program management, operations, data scientists, customer experience designers, can all benefit from the Money Team's coordination role.

Senior Leadership Buy-In

The Money Team approach does not work if its leadership lacks authority and the operational muscle to achieve its goals. Top company leadership has to recognize payments as "mission critical" and strategic instead of a cost to be managed. It has to endorse the model and put into motion the reorganization of functional teams to make the model effective.

For example, Glenbrook has seen a company's chargeback management processes handled by three different teams with widely different dispute resolution KPIs. Under a single organization, expertise is deepened and KPIs improve.

No Need to Sacrifice Flexibility

Based on Glenbrook's benchmarking work, we find that many Tier 1 merchants have adopted the "Money Team" model. At some organizations, often those cleaving to the "run fast, break things" entrepreneurial approach, we have encountered resistance to centralization with the complaint "how can a business unit run fast with your bureaucracy?"

The answer is that the Money Team can help the business unit run faster by bringing the team in early, well before vendor selection and any of the technical infrastructure or operation investments are made. With business requirements in hand, the Money Team can advise on who to use and how so that all basic requirements are met while knowing the new solution has the ability to scale should the new initiative prove successful. That, after all, is the point.

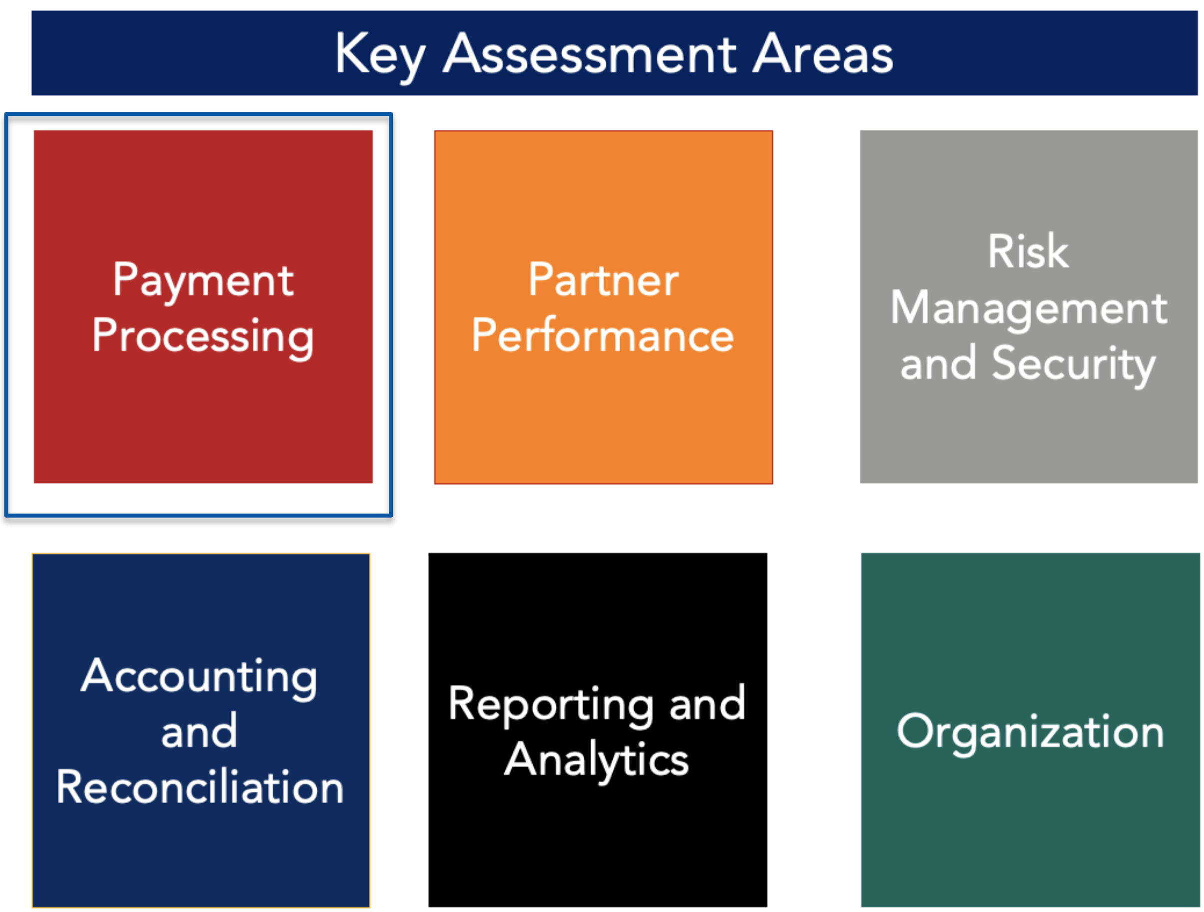
Payment Processing

By Drew Edmond, July 2020

When Glenbrook is Assessing a Merchant's Payments Operations, the goal is to understand whether the payments environment functions in a way that optimally supports their existing business needs as well as any future requirements. To do so, one of the major Key Assessment Areas that we address is the technical architecture and services a merchant uses to process their payments.

The complexity of a merchant's payments architecture can vary greatly. How well that architecture serves the merchant's needs directly affects their ability to manage the costs associated with payment processing, the organization required to support it, and the customer experience. Merchants must balance numerous trade-offs when deciding on the optimal payment architecture for their unique needs and organizational objectives.

This post in our series on merchant payments operations examines the choices that merchants must consider when designing their payments processing architecture, and identifies some best practices that best-in-class merchants incorporate into their architecture and operations.



Payments Architecture Can Vary Greatly Across Merchants

An e-commerce start-up that just started accepting payments has a very different payments architecture compared to a global, omnichannel retail company that has been accepting electronic payments across channels for 15 years or more. The start-up has the benefit of the latest technology that was designed to streamline payment processing. Their focus is typically to get up and running as fast as possible, with minimal overhead, in order to immediately begin making sales. By comparison, the retail giant may be operating on legacy technology that struggles to accommodate rapidly evolving technologies and risks unanticipated by the original design. Developers supporting a sub-optimal payments architecture spend a significant amount of their time addressing technical debt, dealing with maintenance issues, and fixing bad code.

Across the variety of merchants that we have worked with, differences in architecture are often a result of the following factors:

Length of Time Accepting Payments

As above, a new company has the opportunity to leverage new technology built specifically for modern payment processing and for their specific use case while building, from scratch, the internal infrastructure and processes needed to respond flexibly to future demands.
Mature merchants have to measure whether their existing architecture and providers are meeting their needs now and for the foreseeable future. A mature merchant may have a direct connection to only one provider. That design has multiple ramifications:

- **Limited Choices**. The merchant's ability to add new features is subject to whatever the provider has in its kit. Long lead times for new functionality are common.
- **Vulnerability to Outages**. A single vendor's own infrastructure must be resilient. The merchant's own operational requirements may well increase over the course of a contract. What was adequate reliability during year one may no longer meet the merchant's availability requirements.
- **Reduced Negotiating Leverage**. Changing payment processing providers can be a multi-month, if not multi-year, project. Incumbent sole-source providers are fully aware of their level of account control as the merchant has no easy way to switch to a new provider without disrupting their existing business.

Acquisitions of New Businesses

A merchant may have acquired one or more businesses that had pre-existing payment processing infrastructure and provider relationships. This results in multiple payment systems for the organization's IT team to support, additional vendors for the Operations team to manage, and multiple contracts that don't take advantage of the combined merchant's payment volume.

Business Units with Specific Requirements

It is not uncommon for large merchants with multiple business units to have one or more business units "go rogue" and select payment providers that fulfill specific requirements unique to their channel but are not aligned with the corporate "money team's" priorities and design requirements. We often see this independent action because the existing architecture is not able to adapt to the needs of this business unit within an acceptable time frame.

How Many Acquirers Should a Merchant Use?

Merchant's often begin processing with a single provider, as the initial need is to begin taking payments as soon as possible. However, even new merchants should consider that they may need an additional acquirer in the future, and build their architecture in a way that enables the ability to relatively quickly add that new vendor.

Using multiple acquirers comes with benefits and drawbacks:

Benefits. Multiple acquirers provide redundancy. Outages at acquirers are a matter of "when", not "if". Having another acquirer to route transactions allows the merchant to have faith in the resiliency of their system, reducing the risk of poor customer experiences when one acquirer is unable to process a payment.

Multiple acquirers provide the ability to compare price and performance, which provides negotiation leverage when evaluating routing logic to optimize authorization rates and in future contract negotiations.

Drawbacks. On the other hand, using multiple acquirers can make certain aspects of payments management more challenging. Rather than relying on a sole acquirer to provide tokenization services to protect from PCI exposure, the merchant may need to use a third party token provider to store card credential data. That adds another vendor into the mix.

Multiple acquirers also result in the need to normalize data across multiple providers.

Payments Architecture - Build or Buy?

In order for a merchant to accept payments, their payments architecture has to enable and support a multitude of functions. The merchant must decide whether they want to build these functions internally, or use a third-party provider. Primary considerations include budget, the cost of time to market, payments operations and engineering expertise, and product strategy, among others.

Internal Integration Layer

A centralized payments architecture can act as a central hub, to provide payment services to one or more business units by either controlling or tightly integrating with relevant billing and payment initiation systems. This central hub makes all relevant payment methods available to each business unit as needed.

Connectivity to Payment Providers

During a transaction, the payment data needs to be passed from the merchant at the point of sale - whether that is at the physical POS or through an online checkout form - to at least one payment provider in order to be routed to the network and ultimately the issuing bank. As a result, the payments architecture needs connectivity to the merchant's payments providers to facilitate this transaction.

Merchants have two options for acquirer connectivity:

- **Direct Connection**. Directly connecting to a provider's front end authorization system can reduce cost (by not using a gateway to connect and paying its fees), but may require more engineering resources to maintain, as the merchant is responsible for coding to any changes that the provider front end requires.
- **Gateway**. A gateway can be useful for merchants that need to connect to multiple acquirers, as the gateway is responsible for maintaining the direct connections with multiple acquirers.

Routing Logic
Some merchants want to have control over how each transaction is routed to its providers. For instance, they may send certain debit transactions to the debit networks for cost purposes. They may design for resilience and the ability to failover seamlessly to another provider in the event of an outage or connectivity issue. Merchants can choose to build this themselves, but some gateways can provide intelligent routing on their behalf.

Retry Logic
Merchants that have recurring payments needs, e.g. billers and subscription providers, often have business logic that dictates when and how a transaction is retried if it fails on the initial approval request. Merchants may build this logic themselves, or may use a tightly integrated third party to provide this retry logic.

Connections to Fraud Management Tools
A merchant has multiple options when incorporating fraud tools into their payments environment.

- **Acquirer Fraud Tools**. Many acquirers offer their own fraud prevention and risk management tools. They may be built in-house by the acquirer or be a white-labeled solution from a third party fraud tool provider. Use of an acquirer's fraud tool may be sufficient for a low risk merchant with a single provider. However, we often see merchants with both single and multiple acquirers choosing to add additional fraud tools, especially for transactions in the remote domain, card not present context.

- **Gateway Fraud Tools.** Merchants that use a gateway to connect to multiple acquirers may have access to a gateway's fraud tool solution. Again, this may be sufficient for some merchants, while others may seek point solutions.

- **Third Party Fraud Tools.** These point solutions are solely focused on preventing fraud and managing risk, and may also include workflow management for operations teams. Given their position in the transaction flow, tight integration into the payments environment is critical.

Data Ingestion and Storage

As we discuss in our post on Reporting and Analytics, managing payments operations requires the ability to develop timely reports and real time dashboards from the data provided by the merchant's payments providers. Without this capability, the merchant has little ability to monitor KPIs and the health of its payments operations. A modern payments environment will ingest, translate, normalize, and store data sent from multiple providers. We typically recommend merchants build this operational capability in-house, but some merchants do choose to use third parties to store and manage their payments data.

This data ingestion also needs to be tightly integrated with Accounting and Reconciliation teams and services, as the payments data from providers should be reconciled against internal data to generate exceptions when the data does not match.

Token Management

Merchants that use their acquirer, gateway, or a third party token provider to store card credentials also need a place to store and manage the associated tokens generated by these providers. Tokens are used to identify each transaction without direct reference, in card not present environments, to the card on file. Storage and management of a merchant's token database are key components of the merchant's payments infrastructure.

Account Updater Logic

Merchants with cards on file can use services such as Visa's Account Updater (typically offered through their acquirer or third party token provider) to maintain up to date card credential information. Depending on whether the merchant uses a batch or real-time version of Account Updater, there is typically business logic that dictates which cards are sent for an update, and when. This logic is integrated with the internal token management service.

Conclusion

As the global payments ecosystem continues to rapidly evolve, maintaining a flexible payments environment will be paramount to merchants. Modern platforms with developer-friendly APIs are well positioned to capture the high growth businesses that will become tomorrow's enterprise-level companies. Incumbent providers will need to continue modernizing their platforms and leveraging their established platform performance while they accelerate their ability to adapt more quickly to changes in the payments ecosystem and resulting merchant needs.

Accounting & Reconciliation

By Drew Edmond, October 2020

A core component of Glenbrook's methodology for assessing a merchant's payments operations includes review of certain processes managed by the business's accounting team, particularly the level of effort required to reconcile payment activity.

The business's accounting team is responsible for a variety of fundamental financial activities, including record keeping and reporting, accounts payable and receivable, payroll, and financial audits and controls.

Among the team's responsibilities that are affected by payments operations is payment reconciliation, a key function that helps ensure the general ledger is complete and ready to produce timely and accurate financial statements. Reconciliation is a necessary task across all of the payment systems that the business connects to: cards, ACH, digital wallets, and more. Reconciliation is also critical for financial, compliance, and risk audits, especially for merchants and businesses with money transmitter licenses. Fintechs, take note!

Reconciliation is a complex job that calls for automation. Variations in cutoff times, inconsistent currency conversions, uneven support of data formatting and naming conventions across banks/PSP/acquirers are all challenges that the business's money team must address.

We'll examine each of these challenges in more detail below, and highlight some best practices that we recommend to our clients.

Rethinking Reconciliation Strengthens Operations and Positions Teams for Broader Contributions

Reconciliation is the process of comparing the status and amount of authorized transactions to the settled funds received. This generally involves three data sources: the business's own order system, transaction data from the acquirer or PSP, and bank statements. To accomplish this, the business has a few reconciliation methods to choose from:

- **2-Way Reconciliation**: The merchant compares only 2 of the 3 data sources, orders against transaction data for example. This is a sub-optimal path for obvious reasons, as it is an incomplete reconciliation.
- **3-Way Reconciliation**: The merchant compares transactions logged in their internal system to reports generated by its payment providers, and then to the bank accounts where settled transactions are ultimately deposited. This improves visibility but data shortcomings inhibit total transparency.
- **Transaction Level Reconciliation:** This path produces the clearest picture but is difficult to do as bank statements generally do not support transaction level data, instead providing aggregate data to match to the sum on the order and payments reports. Further, PSPs and acquirers do not all support transaction level reporting, particularly for non-card transactions.
- **Aggregate Level Reconciliation**: This path is the most common but without the underlying numeric detail it is hard to produce crisp reconciliation results. Variations in cutoff times for processing and reporting, reporting of chargebacks and reversals, currency exchange, and simple time zone differences add further complexity.

When discrepancies between any of these data sources exist, exceptions are generated and an investigation is required to determine the discrepancy's cause. This can be a daily task requiring that each day is used to investigate the prior day's exceptions. If the business operates globally, even the definition of a "day" becomes less clear.

Depending upon merchant size and sophistication, the reconciliation process can be highly manual. We continue to find even very large merchants using spreadsheets to identify exceptions and generate accurate reports. Smaller merchants operating in the point of sale and remote commerce or online domains face similar challenges, especially when using multiple payment service providers.

Not only is this repetitive manual work tedious and demoralizing, it is impossible to manage and control. If you were to ask a CFO, they will be the first to say that manual processes and spreadsheets in financial operations are disasters waiting to happen.

Daily manual processes like these:

- Take too much time to accomplish
- Introduce user errors from data entry, data import and report generation mistakes
- Lower the accounting team's morale because it is routine, boring, and unproductive

Further, manual processes and spreadsheets are impossible to manage from a controls and process perspective:

- How do you track changes?
- How well can you secure access to spreadsheet-based financial data?
- What happens if the person who manages the spreadsheet process leaves or is out of the office for a period of time?

With a workflow redesign, the increased efficiency can even improve the accounting team's morale, allowing members to focus on strategic or other high-value activities. We all want to contribute to the success of the business and not to be saddled with tasks that should be automated end-to-end.

Key Areas of Consideration

Processes and Software in Use

Reconciliation processes vary by merchant size, organizational structure, and technical maturity. Table 1 illustrates the impact across the merchant categories.

Business Category	Description	Challenge
Startup to Mid-Market	Process improvement is a complex and all-too-infrequent job given the press of today's business. But the impact can be profound on the organization's financials as well as its personnel.	Automation of paper-based processes are often challenged by data integration. Excel, Tableau and Looker tools may bridge the gaps but opportunities for end-to-end integration and visibility should be evaluated. What is the level of effort required to achieve automated end-to-end integration of process reports into the general ledger?
Mid-market to High Growth	Reconciliation is not a priority for the business as engineering effort focus on product, sales, marketing, and scaling globally. Manual processes become more automated, staffing levels increase or may be outsourced to low cost BPOs, aggregated reconciliation starts to show "cracks"	Processes designed for an earlier business stage require significant manual effort when business volume and complexity increase. Automation of reconciliation tasks, among others, may require reevaluation of core accounting software. What is needed to support future growth?
Multinational Multi-subsidiary	Complexity makes manual processes untenable, increases time spent on investigations, the time to close the monthly books expands, audits are difficult and overly time consuming to support	Integration of multiple domestic payment systems, new acquirer/PSP data formats, operation of multiple ERP systems, all complicate transaction reconciliation, local compliance, and audit requirements. What is the enterprise strategy to speed reporting and optimize headcount?
University	A major university may have dozens of merchant accounts as well as vendors operating under it. Reporting and governance of multiple small "businesses" under its purview is an ongoing challenge.	Reconciliation of reports, even on a monthly basis, from dozens to hundreds of merchants and their payment service providers is painful. Where are the biggest inefficiencies and what is the best path to improve them?

Payment Provider Reporting
A critical input into the reconciliation process are the daily reports generated by payment providers. The format and transactional data included in these reports differ across providers, payment systems, and countries. These differences can stymie the integration and reconciliation task before the Accounting team. It is important to leverage the payment provider's support team and relationship managers if the reports cause frequent reconciliation issues. Timely report delivery is also critical to ensure no time-sensitive processes are affected. As we describe in our post about Data and Analytics, report generation should be tracked for accuracy, timeliness, and, ideally measured against a metric enforced through a Service Level Agreement.

Overview of Processes and Policies
Accounting departments, especially at more established merchants, can be limited through a reliance on tradition - that is, doing things the way they've always been done. Of course, such historic processes and policies can become outdated and inefficient.

All too many merchants continue to use Excel spreadsheets to manage their accounting processes. They are more prone to user error and must perform far more manual steps to complete what can often be automated. For example, during a monthly close, the Accounting team must manage spreadsheet version control, the storage of files in shared internal folders, and manage approvals, steps that become increasingly unsustainable as an organization grows and becomes more complex.

When we undertake a payment operations assessment for a merchant or biller, we often find the reconciliation process to be rich with opportunity for improvement. Our review measures how well each Accounting process supports the team's ability to complete key responsibilities and supports the broader business objectives.

Centralize for Team Visibility
A centralized solution that standardizes accounting processes provides visibility into these processes across organizational stakeholders. Centralization helps ensure that other team members are able to access critical information when they need it, creating further efficiencies across the organization.

Optimize for Your Organization

All merchants have unique characteristics that lead to nuanced challenges. These challenges often stem from decisions made under circumstances that no longer apply. As merchants grow and evolve, decisions made across business units can interact unexpectedly and result in lower efficiency, higher costs, and lower team morale. Accounting processes are disproportionately exposed to this as they are developed in response to vendors chosen by other teams. Accounting is then left to fill the capability gaps. Periodic reassessment of existing processes and mapping the results to any new capabilities offered by vendors provides an opportunity to improve critical performance metrics.

Process improvement is a complex and all-too-infrequent job given the press of today's business. But the impact can be profound on the organization's financials as well as its personnel.

About Glenbrook Partners

Glenbrook Partners is a dedicated strategy consulting and advisory firm offering deep insights into how the payments industry is evolving and how advantages can be gleaned from this changing environment. We focus on strategic analysis, research and intelligence, and industry education to drive value creation and high-margin growth for clients. We are an ideal partner for any organization evaluating its next step in payments, refreshing corporate or department strategies, or solving a tough payments challenge.

We work with operators of payments systems, businesses that use payments systems, and companies providing technology and services to the payments industry. We serve clients across the globe and are well versed in contemporary issues in payments infrastructure in both developed and developing markets.

Our clients are professionals at all levels of experience and expertise, from product, operations, and treasury managers to marketers, customer experience leaders, and executives across the payments spectrum.

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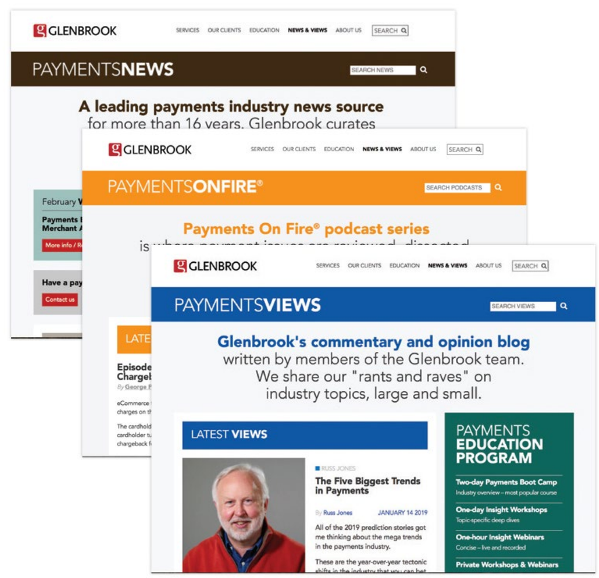
In concert with our consulting practice, Glenbrook provides information and training tools to deliver knowledge and insight to payments professionals.



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Glenbrook's Team

Glenbrook's partners are all seasoned industry veterans with extensive executive experience in payment processing, card networks, banking, technology, and consulting.

Our partners offer:

- Deep industry expertise
- Technical understanding of industry issues
- A focus on product and channel strategies
- An understanding of the payments industry's unique adoption challenges for new products
- Deep background in merchant, corporate treasury, and bank back-office processes

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Meet the rest of the Glenbrook team:

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