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Merchant Payments Orchestration

A GLENBROOK PAYMENTS VIEWS SERIES

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

Part 1: Demystifying Payments Orchestration

Those who follow the payments industry will not have failed to notice the hype around payments orchestration in the past few years. The ubiquity of the term raises the question: what exactly does payments orchestration mean? We see the term used to describe providers serving Financial Institutions that will orchestrate routing for fast payments, and providers offering risk orchestration have emerged in the fraud space. However, orchestration is most frequently used in conjunction with merchant payments acceptance, whereby Orchestration Platforms tout the myriad benefits they bring to merchants, including improved authorization rates, lower overhead costs, and greater speed to market.

In Part 1 of this paper, we will objectively review the topic of payments orchestration for merchants, avoiding marketing jargon and spin, to decipher what is being offered, in what forms, and by which types of providers. In Part 2, we'll explore the benefits of orchestration, whether 3rd party Orchestration Platform solutions are the right choice for all merchants, and the characteristics that promote good fit.

Merchant Payments Orchestration Defined

Before we define payments orchestration, it's helpful to first look more broadly at the concept of orchestration. The dictionary definition of the verb orchestrate is "*to arrange or combine so as to achieve a desired or maximum effect.*"[1] In systems administration, "*orchestration is the automated configuring, coordinating, and managing of computer systems and software.*" [2]   Hence, the concept clearly includes the utilization of multiple component parts in a combined and choreographed fashion that, through their combination, gives the user a superior outcome.

As applied to payments, there are many different descriptions and definitions that have been postulated, and indeed, many solution providers promoting their orchestration credentials.

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[1] Merriam-Webster dictionary definition of the verb to orchestrate https://www.merriam-webster.com/dictionary/orchestrate
[2] Erl, Thomas (2005). Service-Oriented Architecture: Concepts, Technology & Design. Prentice Hall. ISBN 0-13-185858-0

However, we seek here to offer a definition focusing on pure-play Payments Orchestration Platforms and contrasting that definition with other payments service solutions.

We believe that a full Payments Orchestration Platform solution can be characterized as including the following four elements with the first element being primus inter pares (first among equals):

- Connections to multiple processors or acquirers within a given geographic market giving a merchant the ability to swap out one processor for another, providing greater operational processing resiliency
- A single integration point through which merchants can access relevant geographies, payment methods, and related services
- Transaction optimization solutions to maximize the authorization success of individual transactions; including tokenization capabilities, decline management, and step-up authorization rules
- Smart routing capabilities that can dynamically vary the flow of payments across different networks, regions, or acquirers to lower costs or increase performance

Of course, these four elements are ideally supported by integrated reconciliation, reporting and management through a single dashboard providing operational efficiency for the merchant.

Merchant Payments Orchestration: Historical Context

Why is this our definition? To explain, it's helpful to look back at the evolution of the payments ecosystem and some of the participants within it to illustrate the capabilities that relate to modern-day payments orchestration. The modern Orchestration Platform can be seen as the market evolution of two payments lineages: the gateway, and the modern, full-stack payments service provider (PSP).

Following the early days of e-commerce, we saw gateways (like Cybersource) emerge – and exist today – as a single integration point for merchants to connect with a range of acquirers (typically a single acquirer in a given geography). The benefit to merchants being that it allows, for example, airlines to more easily reach acquirers all over the world as they expand their e-commerce activities into new geographic markets. This single integration point provides clear operational and technical efficiency benefits to those merchants.

Fast forward to the last 10-15 years and we start to see a number of global PSPs (like Adyen, Stripe, and Checkout). Not only do these providers offer merchants local acquiring capabilities around the globe through white-labeled solutions or their own acquiring licenses, but also connections to a long list of alternative (non-card) payment methods that are highly prominent to consumers in specific local markets – all through a single platform integration.

Beyond streamlined access to card acquiring and payment acceptance, this cohort of PSPs are also providing merchants intelligent solutions to improve authorization success rates (like smart retries) or reduce transaction costs (like PINless debit card routing in the US) to optimize performance.

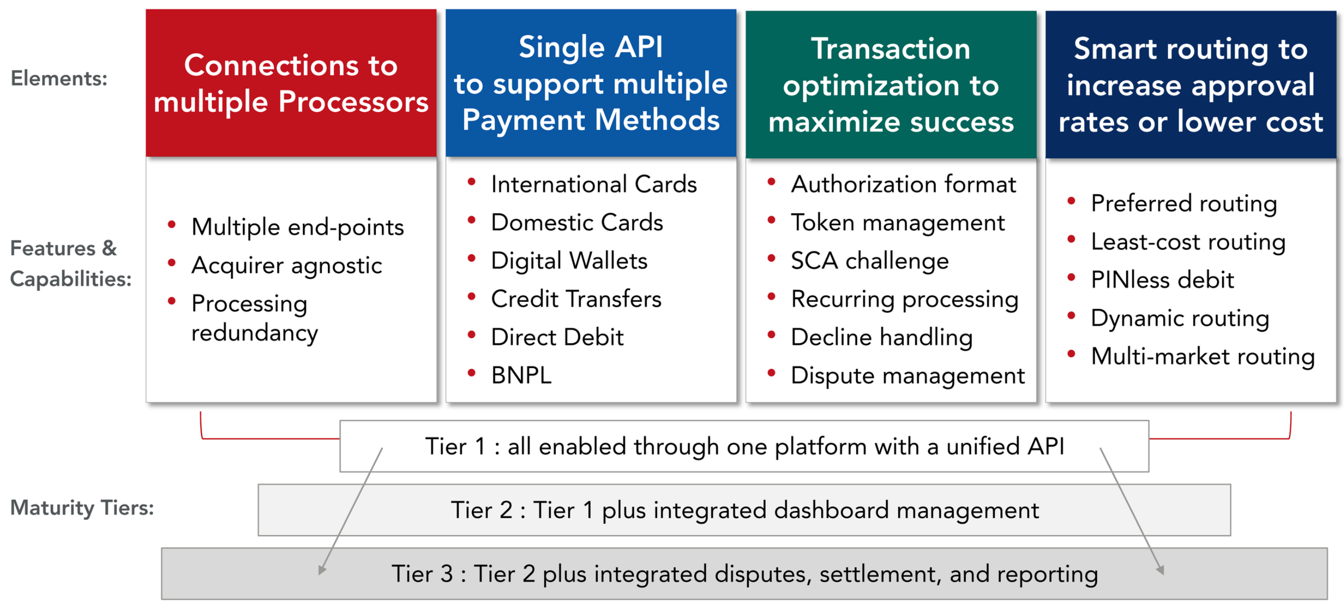
Gateways and global PSPs provide many features and capabilities commonly considered as part of the payments orchestration puzzle. However, a critical distinction between pure orchestration providers and other payment services is their ability to dynamically route transactions between different acquirers in a given market. This capability provides processing redundancy and differentiates pure Orchestration Platforms (like Spreedly, Gr4vy) from PSPs (like Adyen, Stripe, Checkout, which reside in the flow of funds).

We can continue to compare PSPs and Orchestration Platforms through the merchant lens and objective of achieving the best performance at every step of the payments value chain. The PSP value proposition is that, in aggregate, it can bring the best end-to-end solution package to the merchant.

The value proposition of the Orchestration Platform is to bring the best 3rd party point solutions together seamlessly with the accompanying routing and optimization logic, enabling a merchant to compare the performance of one PSP or acquirer with another.

In contrast, the value proposition of the Orchestration Platform is to bring the best 3rd party point solutions together seamlessly with the accompanying routing and optimization logic, enabling a merchant to compare the performance of one PSP or acquirer with another. Hence, of the four elements of our payments orchestration framework, it is the connections to multiple processors which is key to our definition of a payments Orchestration Platform.

Figure 1: Payments Orchestration Framework



Variations between Orchestration Platform providers

You may ask then; how do Orchestration Platforms vary? Undoubtedly, they offer differing flavors and combinations of solutions across the orchestration elements. From our vantage point, we don't currently see a single provider offering all of the capabilities across all of the elements in the framework (and certainly not within transaction optimization), at least not to a strong level of maturity. There are also varying degrees to which a merchant can manage and control all the individual aspects through a single integrated dashboard (as illustrated in the Payments Orchestration Framework in Figure 1).

Another key dimension that differentiates Orchestration Platform providers is their approach to the business logic that underpins their smart routing capabilities. We can envision this as a spectrum with, at one end, a simple user interface that enables merchants to define and set their own routing rules, and at the other end, inbuilt intelligence to autonomously define routing logic. In reality, Orchestration Platforms will fall somewhere along that spectrum offering merchants varying degrees of support in setting and refining the routing logic including combinations of: pre-existing rule sets that can be customized, industry-benchmark data to inform processor selection, or preferred processor recommendations to build into routing logic.

As we conclude Part 1 of our Payments Orchestration series, we have lifted the hood on orchestration, shed a light on the components of Orchestration Platform engines, how they differ, and how they compare with other payment solutions.

Part 2: Payments Orchestration in Practice

In Part 1, we started to unpack one of the buzziest terms in payments: orchestration. As we define it, Orchestration Platforms facilitate a merchant's multi-acquirer setup, in addition to providing services across the areas of transaction optimization, smart routing, and connections to multiple providers (acquirers, non-card payment methods, and related services such as risk solutions) through a single integration.

It is important to note that, individually, these benefits and features are not unique to Orchestration Platform providers. Indeed, many of them are enabled by gateways and global PSPs. Furthermore, orchestration is not an activity that requires a 3rd party provider; many sophisticated enterprise merchants have technical and operational teams working on payments and have been doing their own orchestration in-house for years.

Though the individual functions they provide may not be unique, Orchestration Platforms are unique in their ability to provide **all** of these offerings in a streamlined manner. At Glenbrook, we draw a distinction between orchestration with a little 'o' (the activities), versus Orchestration with a capital 'O' (meaning the providers and service offerings that encompass the defined elements). Now that we have our definitions in place, we will examine the benefits of Orchestration Platforms and which types of merchants may benefit from their use.

What are the key benefits of Orchestration?

The most straightforward way to explore the benefits of orchestration, in its broadest sense, is through the individual elements of the four pillars in its framework.

- Connections to multiple processors
- Single API to support multiple payment methods
- Transaction optimization to maximize success
- Smart routing to increase approval rates or lower cost

- The ability to **route payments between multiple processors** in the same domestic market – while remaining out of PCI scope – offers the merchant optionality, processor performance benchmarking, and redundancy that prevents business interruptions caused by outages.
- Access to **multiple providers and payment types through a single API integration point** reduces the effort to add new payment methods or even geographies – thus reducing the resources, cost, and time to bring new features to market.
- **Transaction optimization** (for example, BIN-level performance decisions for routing between different acquirers or using PAN instead of Network Tokens) helps merchants maximize their revenue. It also creates a stronger end-user experience for their customers by reducing the number of declined and failed payments.
- Finally, **smart routing** can be deployed in various ways to service the merchant's key outcomes, whether it is maximizing auth rates or (in the example of PINless debit routing in the U.S.) optimizing costs.

The true benefit of Orchestration, however, is more than the sum of its parts. The promise of Orchestration is that the four functional pillars of the framework work not only alongside, but also to amplify one another, thus enabling a merchant to employ best-of-breed point solutions at every step across the payments value chain – optimized at the transaction level – without adding the technical or operational complexity of supporting numerous integrations.

An Orchestration Platform's ability to streamline integrations has downstream impacts on the technical, product, and operational functions in the payments organization. From a technical perspective, Orchestration Platforms dramatically reduce the engineering effort required for payments, freeing up valuable technical resources for other initiatives. Rather than building and maintaining a whole host of individual connections to different providers, the merchant will build a connection to the Orchestration Platform.

Orchestration Platforms hold the promise of collapsing the tradeoffs between payments product, engineering, and operations teams, by making it easy to add payment methods or open new markets without fighting for space on the technical roadmap – often against other initiatives with more measurable contributions to the bottom line – and increased complexity.

The single integration also makes the process of opening up new markets and introducing new payment types simpler, as the technical integration (to the Orchestration Platform) has already been completed. Orchestration Platforms hold the promise of collapsing the tradeoffs between payments product, engineering, and operations teams, by making it easy to add payment methods or open new markets without fighting for space on the technical roadmap – often against other initiatives with more measurable contributions to the bottom line – and increased complexity.

Streamlining is also a major benefit for merchants' payments operations teams, to whom the burdens of provider relationship management and transaction optimization typically fall. Orchestration Platforms promise payments operations teams the ability to compare performance and adjust routing logic across providers, with the insights to help them make the smartest decisions. There is not yet an Orchestration Platform provider in the market that has fully realized the vision of serving as a one-stop, "command center" for all payments operations, including full reporting, reconciliation, and operational capabilities (e.g., chargeback management) across all providers. However, the benefit of a single, global view of all payments performance – *that doesn't require a data engineer to build and maintain* – should not be understated. Furthermore, gone are the days when a payments operations team would need engineers to build a full integration to test performance of a new provider. So long as the connection is supported by the Orchestration Platform, payments operations teams can easily route volume over a new acquiring connection to test performance – on their own traffic – with only a contract, without any development required.

Which types of merchants is Orchestration right for?

While the activities involved in orchestration – optimization, smart routing, and streamlining complex operations – are valuable to most merchants, not every merchant will need to employ the services of a third party Orchestration Platform.

In our view, there are a number of dimensions (as illustrated in Figure 2) through which to look at merchants' payments activities to help inform whether orchestration is likely to be a strong fit. Those dimensions typically speak to the level of complexity of a merchant's current or planned payment activities; the more complex the merchant's setup, the greater likelihood that they will derive value from orchestration.

In our view, two types of merchants can benefit from third party Orchestration Platforms: mid-market merchants whose growth has outpaced the size and sophistication of their current operational capabilities; and enterprise merchants with complex payments operations that can benefit from the efficiencies an Orchestration Platform can provide.

Figure 2: Is Orchestration Right for All Merchants?

Weaker Fit	Merchant Characteristics	Stronger Fit
• Does business from a single market	Geographic Breadth	• Does business in multiple markets
• Only supports general purpose cards	Payment Methods Supported	• Supports many payment methods
• Uses a single payments provider	Number of Payments Providers	• Uses several payments providers
• Sells through a single channel	Channel Breadth	• Sells through multiple channels
• Bills on a one-off basis to random customers	Subscription Characteristics	• Bills known customers on a periodic basis

The key lens through which to consider the need for a third party Orchestration Platform is the size and maturity of a merchant's existing payments operations, and the level of resource assigned to support those operations. For smaller merchants, the simplicity of a full-stack solution offered by a single PSP may outweigh incremental benefits of an Orchestration layer. However, once a merchant "graduates" to a level of maturity where a multi-processor environment is required (or desired), third party Orchestration becomes a real consideration. In our view, two types of merchants can benefit from third party Orchestration Platforms: mid-market merchants whose growth has outpaced the size and sophistication of their current operational capabilities; and enterprise merchants with complex payments operations that can benefit from the efficiencies an Orchestration Platform can provide.

Mid-market merchants have generally been considered a "sweet spot" for Orchestration Platforms, which can add functionality the current organization lacks. Moving from a single PSP to an environment that balances multiple PSPs is a jump for any payments team; an Orchestration Platform can help to automate and support routing and optimization decisions. Essentially, third party Orchestration can allow a small payments organization to behave and make decisions like a sophisticated payments operations team, without requiring the time and resources to build one from the ground up.

At the other end of the spectrum, larger enterprise merchants with existing multi-processor models may have already built the orchestration tools and capabilities in-house, with teams of payments experts optimizing the routing and transaction processing.

In these cases, an Orchestration Platform does not add new capabilities (as it would for a mid-market merchant); its main benefit is enabling these sophisticated teams to optimize their *resources*. For enterprise merchants with complex payments environments, Orchestration Platforms offer a way to reduce the cost and resources required for the ongoing building, maintaining, and updating of their numerous connections and in-house payments capabilities.

The jury is out as to whether enterprise merchants will want to relinquish the control of payments orchestration to a third party, or go through the upheaval (and cost) of rewiring their fully functioning and optimized payments stacks. Anecdotally, we are seeing serious consideration of Orchestration Platforms among larger merchants whose payments requirements have become increasingly more complex and whose in-house payments expertise is resource constrained. Among this segment, the efficiencies offered by a third party Orchestration Platform are attractive, particularly if a merchant can retain appropriate control of the business logic underpinning the smart routing capabilities. For merchants that are hesitant to relinquish any control of their payments operations, an Orchestration Platform that takes the approach of reporting insights, but letting the merchant control their own routing decisions may be a better fit than one with a more "black box" approach that makes routing decisions on the merchant's behalf.

A final consideration is a merchant's roadmap for geographic expansion. As merchants look to expand their geographic footprint, an Orchestration Platform can help to open new markets without requiring additional integration work or resources. This can accelerate the time to enter any market, but also can enable merchants to enter longer-tail geographies where it may be difficult to build a business case with sufficient ROI to justify the necessary development resources.

