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**What is a Payment Gateway?**

Payment gateway is a software interface that provides merchants with various types of electronic payments. Gateways serves a variety of needs :

* Providing payment services for softwares with various types of point of sales solutions
* Presenting simple interface that makes implementing a payment function easier
* Helping integrated software vendors avoid the need to code particular payment process.
* Offering reporting, analytics anti-fraud, and interfaces to various third party accounting platforms

**How it works**

Payment gateway works by centralizing the payment ecosystem into one gateway, making the overall time of a transaction shorter, since in a traditional payment method there are multiple party that can operate their own gateways. Making the transaction traverse multiple gateways before the payment is finally processed.

**Types of Payment Gateway**

1. Hosted Payment Gateway

The host of the payment gateway provides a checkout page on their own servers, making it easier to integrate and are more web and mobile web friendly. And, Online merchants may reduce PCI scope by relying on the gateway provider to secure the payment page and handle sensitive information.

1. API accessible gateways

Merchants that want more control over the checkout experience would prefer to host their own checkout pages. They may use a third party shopping cart, rely on application ISVs, or use consultants or in-house developers to build their own. These types of gateways can increase the scope of PCI DSS scope.

1. Direct gateways offered by payment processors

Major payment processor often provide their own gateways to simply connections to their core payment and in some cases other platforms as well. The advantages of this solution are they might offer better pricing, they can be faster and reliable. The downsides is that even though it is relativity simple they can be harder to code.

1. Platform-centered gateways

This solution provide an infrastructure that allows merchant to offer goods and services directly from a full-service payment platform. Rather than developing their own. Platforms of this type can solve a variety of issues for merchants including avoiding costly development or integration efforts and handling issues like internationalization, multi currency support and a broader set of payment methods popular in different locales.

1. Gateway aggregator

Gateway aggregator presents a simplified programming interface to developers and ISVs and also provides back-end integrations supporting a variety of other gateways. Using this gateway an ISVs can offer a merchant their choice of gateway while minimalizing their own coding integration, testing, and maintenance effort. A potential downside of this gateway is that feature sets tend to be watered down.

**Consideration when choosing a gateway**

An ISV or merchant can decide what consideration are important to them, or weigh the value of each attribute accordingly.

1. Cost per payment

For most merchants cost is always an issue. A difference of 0.2% in an average cost per transaction may not sound a lot, but for a small business this represents $10K to the bottom line.

1. Percentage of transactions that complete successfully

This is arguably more important than minor differences in the cost per transaction, because failed authorization can translate directly to lost business and a reduction of top-line revenue. This is an area where the gateways offered by larger payment processor often have a significant edge.

1. Types of bank account required

Most gateways will require merchant to have a merchant bank account and their own merchant id (MID). Other gateways essentially act as aggregator, collecting payment themselves and then distributing them to a merchant’s bank account periodically or as requested.

1. Support for card present/point of sale applications

Many popular gateways are built for e-commerce. This is logical, since most business adding an online storefront already have established point of sale solution, and pure play e-commerce provider may not need one.

1. Ease of integration and maintenance

Ease of integration can be an important consideration. Some application gateway are developer friendly offering hosted payment pages or easy-to-use SDKs implemented in multiple programming language. Other payment gateway provide an interface specification instead where client application send and receive payment transactions that they encode themselves in XML or JSON formats.

1. Throughput and performance

Another factor is performance. Gateways often pass payment data through multiple providers, and each additional “hop” introduces latency and increases opportunities for errors or outages. Payment approval times can be affected as well.

1. Security, encryption and PCI scope

How the gateway handles sensitive cardholder data is another key consideration for both merchants and developers. Most gateways offer hosted payment solution that vault credentials at the point of capture providing a low-value, non-PCI sensitive token.

1. Multi-currency support

For online merchant selling internationally, multi-currency support is important as well. Multi-currency support should not be confused with accepting international cards. Consumers prefers to pay in their home currency for a variety of reasons including concerns about non-competitive currency exchange rates.