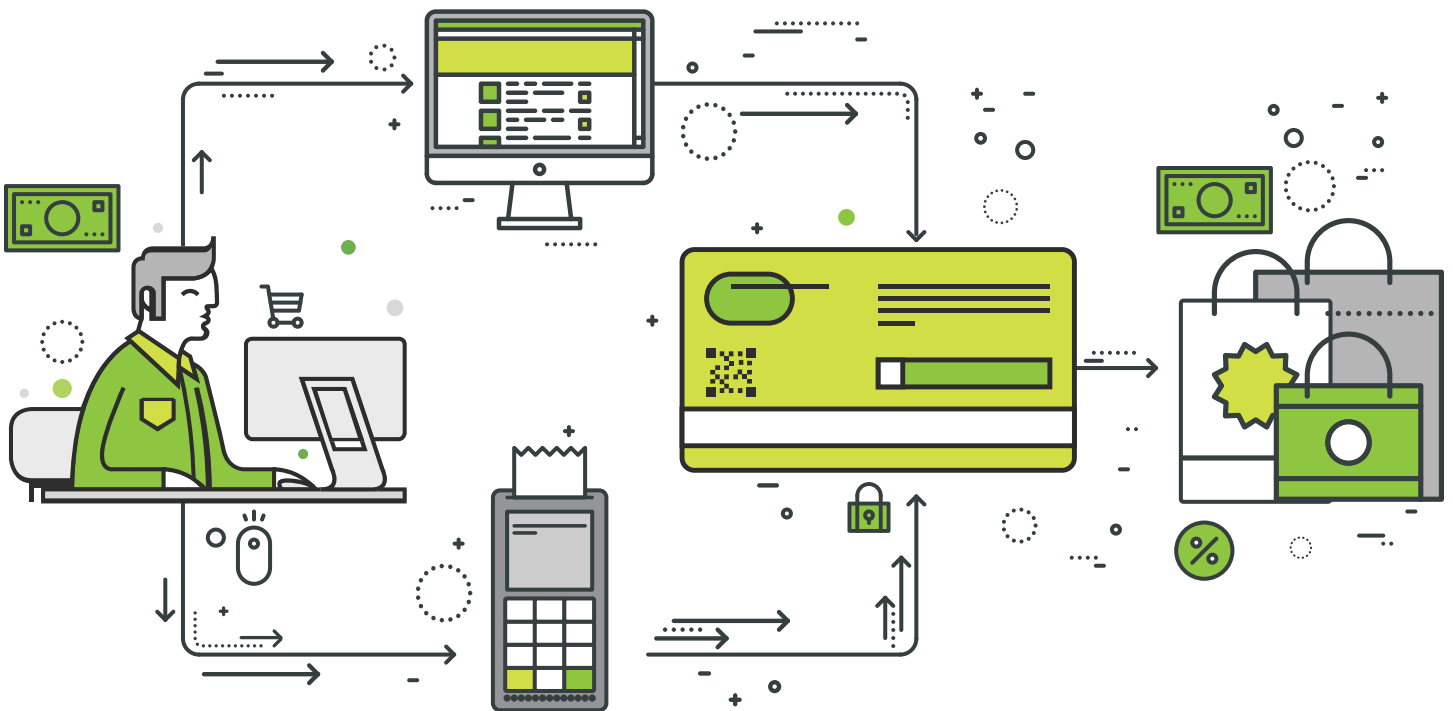


Payment Processing

*A simple explanation of
the entire credit card payment
transaction process.*

We promise.



We admit it—credit card transactions can be confusing. Sure, the initial transaction part when your customer first presents his or her credit card number for a purchase seems easy enough. After all it happens in mere seconds.

But what exactly goes on in those mere seconds? And what is all that other stuff that occurs after a customer receives his or her product or service? Like all those funds being transferred and settled? What is that all about?

And what are those fees that you get charged? Are they really necessary?

Well we're here to explain it all to you in this simple—we hope—guide.

Does payment processing have to be so complicated? Yes and no.

Here's the thing about credit card transactions: Though the initial sales part takes place in less than two seconds, a lot goes on—both during the sale and afterwards.

The truth is it takes quite a few moving parts to go from the moment a credit card is presented for purchasing a product or service to the time a sale is approved and the merchant or service-provider is paid.

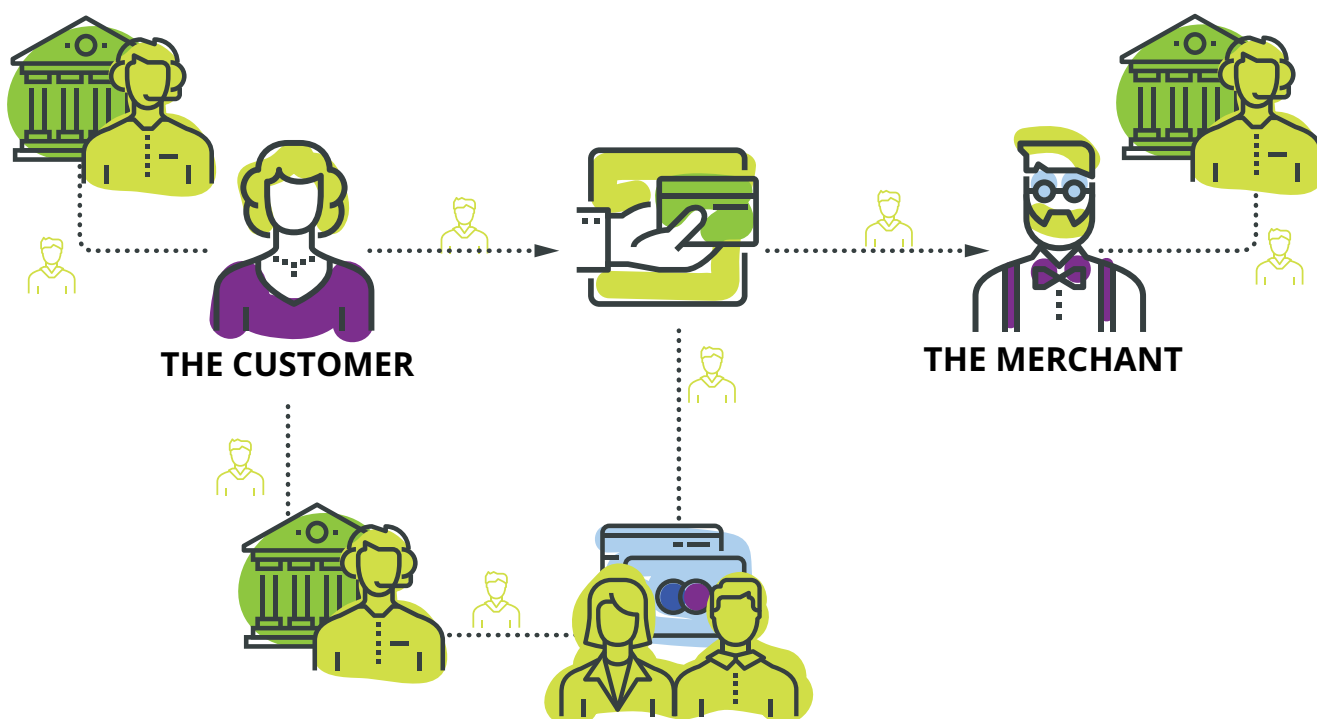
Or to put it another way: to make those first less-than-two seconds as fast and simple as possible, quite a few things need to occur.

First, consider all the people involved in a credit card transaction. There's the person making the purchase. There's the merchant. And then there are the credit card brand networks like Visa and MasterCard. That's a lot of people to appease in just two seconds.

But that's not all. There is also the bank that issued the credit card to the customer in the first place. There's often another bank where the customer has his or her account. And then the merchant too requires a bank to place the payments he or she receives.

Finally, in between all these actors, someone else is needed to make sure all transactions are safe and secure and that the parties involved in a transaction are who they really say they are.

Yes, it's a lot more complicated than you might have first suspected. But the good news is that in spite of all the players involved in a credit card transaction, it's actually a very well integrated and smooth process. We're not kidding. It is.



A credit card transaction from start to finish



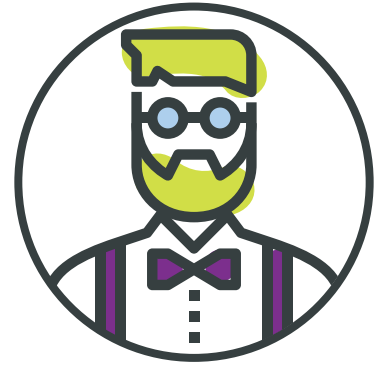
1. THE CUSTOMER

Everything begins with the customer. He or she sets the entire transaction process in motion when he or she presents his or her credit card to make a purchase.

But even here, right at the very beginning of the transaction process, things get quite interesting. That's because a credit card doesn't actually have to be physically present these days for a sale to happen.

As we all know, we now live in the digital age, and in the digital age, customers don't need to be in a store to buy something. They can make purchases with their computer, or with their mobile device. They can also use the telephone. Or order a product by mail. These are called card-not-present purchases, or CNP.

Yes, making purchases with credit cards has become more convenient than ever for customers. But to maintain this convenience, businesses need to rely on a transaction process that is as versatile as possible while remaining both efficient and effective.



2. THE MERCHANT

So customers today have choices in how they provide their credit card information to a merchant. They can do this physically with their card present at the point-of-sale—which in shorthand is referred to as POS. Or they can use a CNP process as when making online payments.

But no matter how a customer provides his or her credit card information, it is incumbent on merchants and everyone else in the transaction process to do all they can to guarantee that a customer's financial information is always safe and secure.

The credit card industry could not exist unless all parties involved in this process can trust one another. To ensure that trust, the credit card industry itself demands that merchants maintain practices and standards that protect customers.

It is these compliance rules combined with the concern for utmost security that is one of the major reasons why the card transaction process requires the many protocols and steps that we are now describing.



3. THE POINT OF ENTRY

A customer presents his or her credit card information to make a purchase. The business merchant now needs to enter this information into the payments system solution he or she has chosen to make credit card transactions. (Like Qualpay!

To do this, the merchant first requires an entry device or other type of front-end point having payment acceptance capabilities. The most common such entry configuration is the physical POS terminal with which we are all familiar. For e-Commerce transactions, there is typically a shopping cart that we've also now all seen. In addition, there are mobile apps with their own configurations to enter credit card data information.

The point of entry is where your customer's data begins its journey through the entire credit card transaction process. It is just one of many data transfer points that make up the payments transaction process.



4. THE PAYMENT GATEWAY

The credit card information the customer generates are business merchant forms—what is called a payment request. This payment request is encrypted at the initial data entry point and is sent to the payment gateway.

The payment gateway is the hub of electronic transactions. It works in tandem with the payment processor. More about the processor later. But understand for now that the payment gateway and processor operating together do most of the heavy lifting in the credit card transaction process.

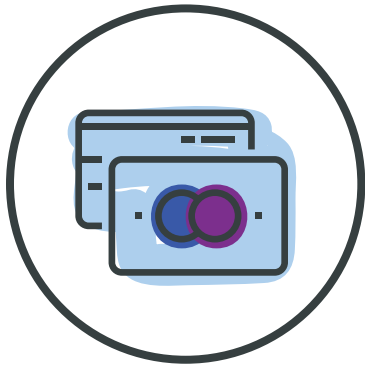
When the payment gateway receives the encrypted payment request from the point of entry, it decrypts this information and then re-encrypts it. This is done for both security purposes and so that all the subsequent players in the transaction process—including the credit card brands—are able to communicate with one another.

With the information from the payment request newly encrypted, the payment gateway shuttles this information to the



5. THE PROCESSOR

The processor is responsible for connecting to and communicating with the credit card brands. After receiving the re-encrypted payment request from the payment gateway, the processor decrypts the request, recognizes which credit card brand is being used in the transaction, re-encrypts and then sends the payment request to that particular card brand network.



6. THE CREDIT CARD BRAND NETWORK

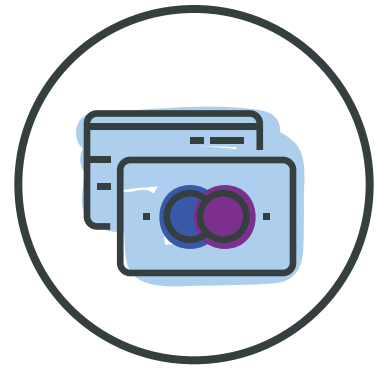
After the credit card brand network receives the payment request from the processor, it figures out which bank issued its card to the customer. It then routes the payment request data to that issuing bank.



7. THE ISSUING BANK

The issuing bank is the bank that approved the customer for a credit card. Capital One and Chase are examples of issuing banks. They are the ones who underwrite the consumer risk inherent in people using credit cards.

After the issuing bank receives the payment request from the card brand network, it checks the customer's credit level. If the customer has enough credit, the issuing bank sends this information to the card brand approving—or disapproving—the transaction.



8. THE CREDIT CARD BRAND NETWORK

Once the card brand network receives approval or disapproval from the issuing bank, it relays this decision to the processor.



9. BACK TO THE POINT OF ENTRY.

The processor in turn forwards the decision from the card brand to the payment gateway. The payment gateway then passes this decision on to the data entry point where everything first started. It is now here at the initial point of entry that the merchant and customer both discover whether the credit card transaction has been approved.

And remember, all of this has happened in just a couple of seconds.

If the transaction has been approved, the customer receives his or her merchandise or service. And for now, all are happy. The real-time nature of payment processing has ended. But there is still more that needs to be done.



10. BATCH PROCESSING

Now comes another very crucial part of the credit card transaction process—a part to which all business merchants need to pay close attention. It's called batch processing.

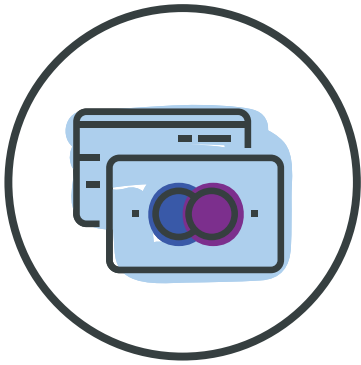
A batch is the collection of the many sales transactions that have been conducted during the business day.

At the end of the business day, the payment gateway collects all of the merchant's sales, or the batch. It then sends them on to the processor.



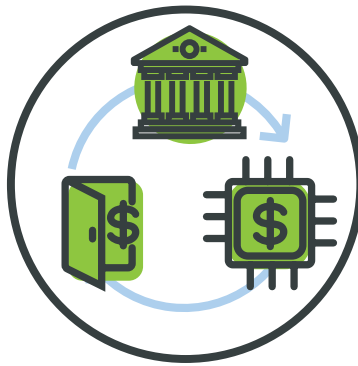
11. THE PROCESSOR YET AGAIN

Upon receiving the batch, the processor now begins the activity of settling each transaction within the batch to the appropriate card brand. As part of the process, interchange or the cost of the payment transaction is assigned and then batches are sent to the card brands for processing. The card brands will respond a few hours later to the success of settlement.



12. ONCE MORE, THE CREDIT CARD BRAND NETWORK

After receiving the transaction information from the processor, each card network settles those transactions involving its card. They do this by taking funds for the product or service that the customer purchased with its card from the customer's personal bank account. The card network then places the customer's funds in the acquiring bank's settlement account.



13. THE ACQUIRING BANK

The acquiring bank is another aspect of the credit card transaction process that might not be familiar to everyone, but it plays a critical role in the transaction process that all merchants need to understand.

Basically the acquiring bank is responsible for the underwriting that allows a merchant to take credit cards in the first place and for funding and billing you for credit card processing.

Acquiring banks are usually set up separately from the processor. Today, the best transaction processes have the acquiring bank fully integrated with the processor and the payment gateway. This makes for a more seamless transaction and, of course, means one less actor in the whole transaction system.



14. A SMALL INTERCHANGE FEE

Just before the card brand places the customer's funds into the acquiring bank's settlement account, an interchange cost fee, already calculated by the processor, is applied by the card brand for its service. This is the first—and the most costly—of a handful of fees that a merchant will incur during the entire credit card transaction process.



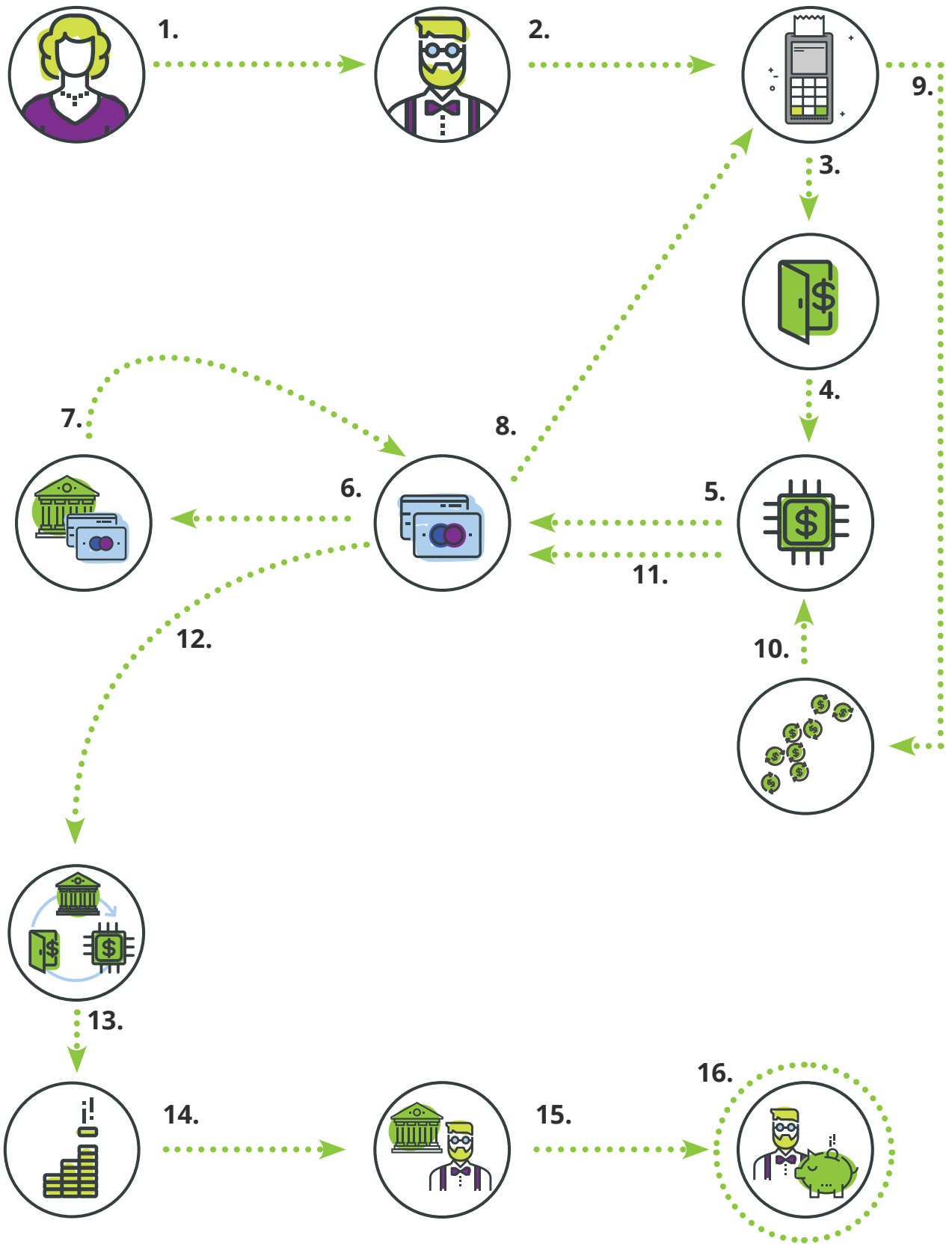
15. GETTING PAID

It takes another network to move the funds now in the acquiring bank's settlement account to the merchant's business checking bank account. This network is called the Automated Clearing House (ACH).

The time it takes the ACH to move money into the merchant's bank account varies from one acquiring bank to another. Generally it's a few days. Also, the ACH network only operates on business days from Monday through Friday, so those are the only times a merchant will receive funds in his or her business bank account.

16. THE MERCHANT'S BUSINESS BANK ACCOUNT. FINALLY.

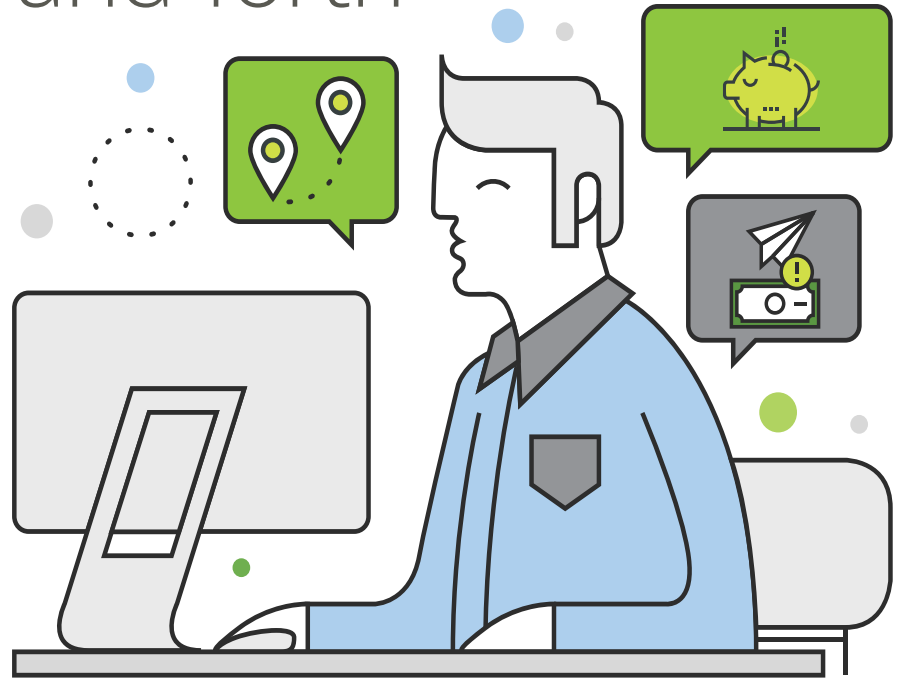
Once the merchant receives his or her money, a small fee may have already been charged to the merchant by the acquiring bank provider. Commonly this is known as funding "net". Other acquirers will fund "gross", meaning the cost of processing will be billed at the end of the month and the acquirer covers the cost of processing until then.



We told you there was a lot of back-and-forth going on.

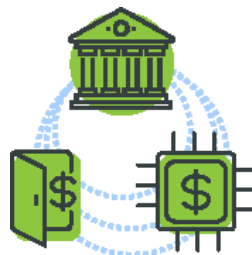
No one expects you to be a total expert on all the ins and outs and ebbs and flows involved in a credit card transaction. And you shouldn't have to be. You have enough things to worry about just running your business every day.

Nonetheless, there are some components of the card transaction process of which every merchant should be aware.



- It's essential that all your credit card transactions be PCI-compliant. "PCI" means Payment Card Industry. The Payment Card Industry Standards Council sets the industry-wide standards by which sensitive credit card data is kept safe and secure. Meeting these standards is crucial for any reputable credit card payments solution that you are using.

- Look for a payment solution that provides technical support and resources whenever you need them. That means 24/7/365.
- A fully-integrated payment system solution that combines a payment gateway and processor with an acquiring bank is also important. It makes processing credit cards simpler, faster and much less expensive.



- You also want a payment solution that has the flexibility to adjust to your needs as your business grows and changes.



- Be sure the payment solution you choose allows you to accept credit cards through all the sales channels you use today.

The best way to keep things simple—choose Qualpay.



You know all this stuff we just told you about in the section above? Qualpay does all that. And we do it better than anyone else.

How, you ask?

By providing you with one omnichannel platform for processing payments in all the ways people shop today—in-person, online, with their mobile devices, on the phone and through the mail.

And by giving you a seamless connection to all credit card brands and payment types including new technologies like chip cards and Near Frequency Communication (NFC) contactless payments.

Plus our flexible, web-based management portal lets you manage your payments just the way you want from anywhere you want.

Meanwhile our superior business analytics results in a much simpler reconciliation process for you.

And we back all this with 24/7 support from real, live people.

To learn more, contact one of those real, live people today.



Email us at sales@qualpay.com.