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Payment Orchestration
The Ultimate Guide

White Paper

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Contents

1 Introduction

1.1 What is payment orchestration?

Payment orchestration is a single software layer that enables secure, frictionless, online payment processing from payer to payee. Payment orchestration helps organisations to manage the entire payment process, from payment authorisation to transaction routing and settlement.

A payment orchestration layer works independently of a merchant's or contact centre's chosen gateway payment provider and is not affiliated with an acquirer. In this way it can manage multiple card issuers, card schemes, payment methods and open banking which can be interchanged and used dynamically, in real-time to ensure secure, frictionless payments at least cost.

1.2 Five reasons why you should consider payment orchestration

1 Delivers least cost acquiring through optimised transaction routing to reduce payment costs.

2 Enhances security and compliance ensuring fraud prevention for increased customer satisfaction.

3 Simplifies payment management with a single provider for all payments and reporting to streamline visibility and save time.

4 Enables global reach and support with simple, low-cost expansion of payment infrastructure.

5 Provides increased flexibility and scalability with one-to-many integration.

2 Payment orchestration – features and benefits

Features

- ### Easier integration
  A payment orchestration layer with a feature rich, single and simple to use Application Programming Interface (API) enables easier integration with dozens of Acquirers and Payment Gateways to ensure greater settlement success.

- ### Converged commerce
  It offers multiple payment methods APM's, ApplePay, Google Pay, open banking or a mix via one system for enhanced customer experience.

- ### Secure systems
  A layer with EMV 3-D Secure (3DS2) functionality out-of-the-box increases security. An independent platform can include PCI DSS compliance for increased customer security.

- ### Recurring payments handled
  A secure token vault enables the safe storing of card data for repeat use.

Benefits

- ### Continuity for improved customer experience

  Continuity from payment solutions and a payment orchestration layer from a single partner can help to provide a frictionless experience and reduce cost.

- ### Simplifies payment management

  All payment processing can be consolidated into a single platform, making it easier for businesses to manage and track transactions across different card issuers, card schemes, gateways, open banking and acquirers.

- ### Enables global reach and support

  Easy integration with new systems mean that businesses can quickly expand to new markets and support multiple currencies, payment methods, and languages. It helps increase global reach without significant infrastructure changes.

- ### Improves payment rates and reduces costs

  A payment orchestration platform intelligently routes transactions to the most appropriate card scheme, based on cost, success rates and processing times. It optimises overall payment performance for reduced transaction costs and improved approval rates.

- ### Enhances security and compliance

  A single platform provides built-in security features, such as fraud detection and data encryption, to protect sensitive customer information. By consolidating all payment processing through the same platform, businesses can ensure consistent security measures and adhere to regulatory requirements.

3 Questions to ask about payment orchestration

3.1 How does payment orchestration work?

While a payment gateway acts as a secure bridge between your online store and the payment network, a payment orchestration platform offers a comprehensive payment solution. It provides flexibility, advanced routing capabilities, and the ability to optimise your payment ecosystem.

A payment gateway ensures smooth transaction processing, the delivery of authorisation codes and facilitates communication with card issuers and merchant banks. Payment orchestration offers much more than simply transaction processing. It acts as a central layer or hub that connects merchants to multiple payment service providers (PSPs), acquirers, alternative payment methods, and other financial services.

It optimises the flow of payments, by intelligently routing transactions to the most appropriate card scheme, based on cost, success rates and processing times. By dynamically selecting the best payment option it protects against failed transactions. This reduces costs, increases conversion rates and improves cashflow.

As an independent platform it integrates easily with other systems to enable businesses to support regional preferences with multiple currencies, payment methods, and languages. Built-in security features in the platform, such as fraud detection and data encryption, protect sensitive customer information throughout payment processing. These help a business to ensure it has consistent security measures in place and that it is compliant with regulatory requirements.

3.2 How is payment orchestration implemented?

A payment orchestration layer is placed in front of your current gateway. It offers flexibility, advanced routing capabilities, and the ability for businesses to optimise their payment ecosystem.
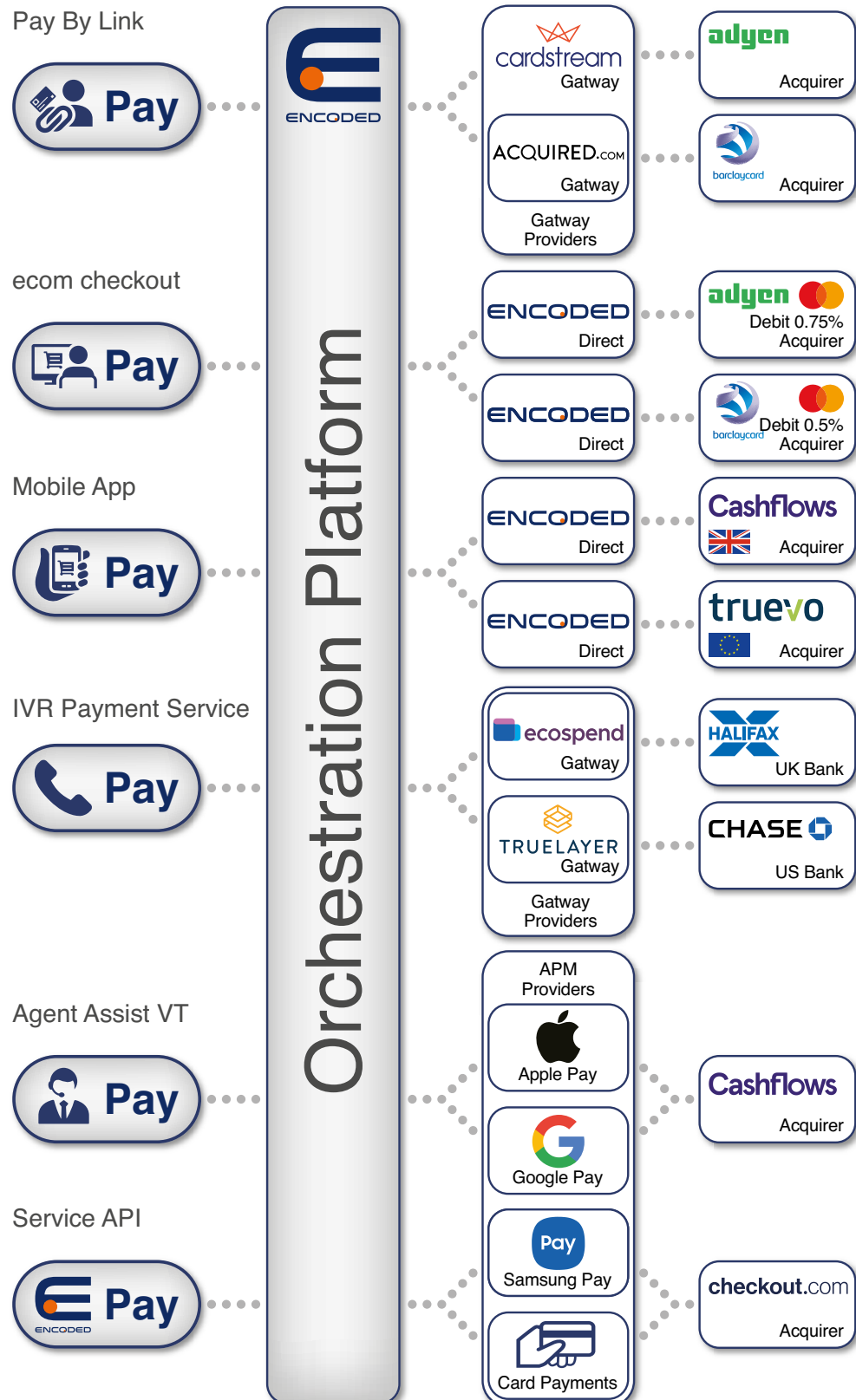
3.3 What is the difference between payment orchestration and a payment gateway?

Payment gateways typically support a limited set of payment methods, including major credit cards and possibly a few alternative payment methods. The main function of a payment gateway is to securely transmit transaction data between the merchant, the customer, and the payment processor or acquiring bank. It focuses on transaction processing, authorisation, and settlement only.

3.4 What payment methods does payment orchestration support?

A payment orchestration platform can offer a broader choice of payment methods by allowing merchants to connect and manage multiple payment methods through a single integration. This enables converged commerce to provide online, in-app, MOTO and Open Banking options via one system giving more choice and an enhanced customer experience.
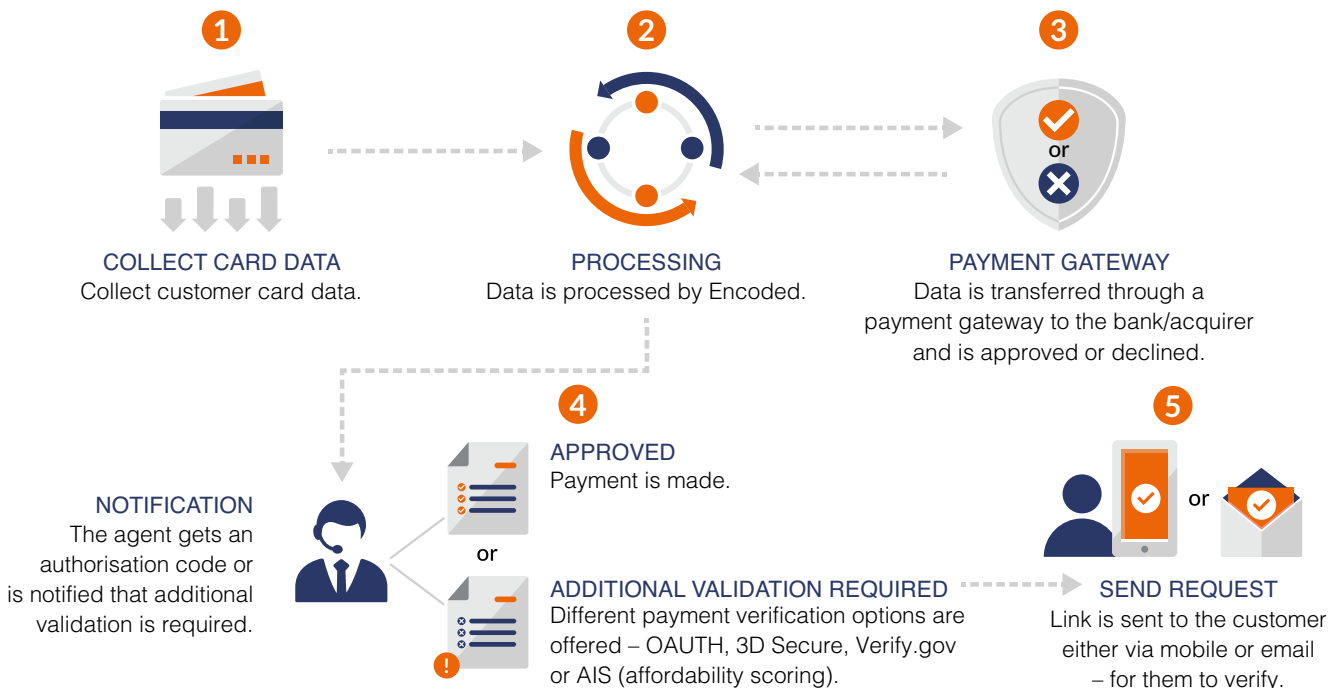

Payment method routing

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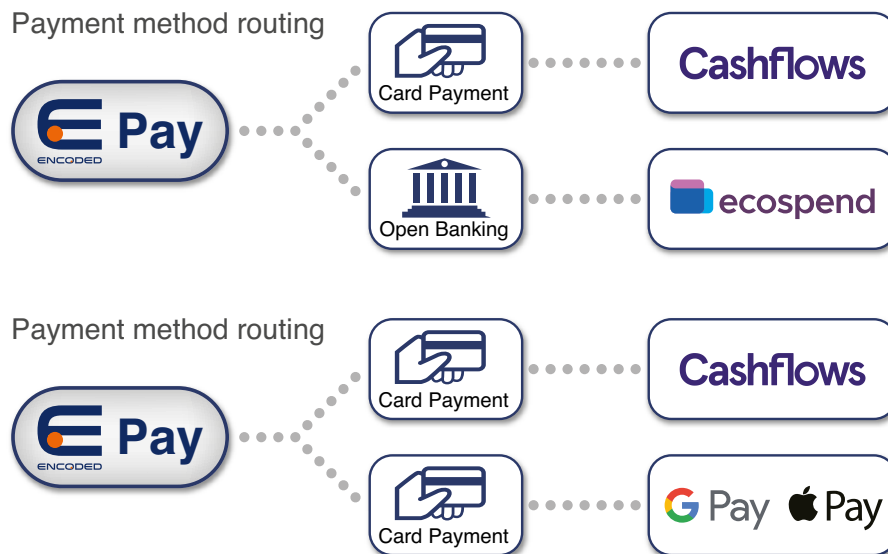
3.5 How does it integrate with existing business systems?

An independent orchestration platform that uses a feature rich, single and simple to use Application Programming Interface (API) enables easier integration with various payment providers. It reduces the technical complexity and effort with no significant infrastructure changes. Businesses can quickly expand to new markets and support multiple currencies, payment methods, and languages, helping increase global reach.

3.6 How does it help protect against fraud and ensure security?

An orchestration platform provides built-in security features, such as fraud detection and data encryption, to protect sensitive customer information. All payment processing is consolidated through the single platform, helping to provide consistent security measures and adherence to regulatory requirements.

1

COLLECT CARD DATA
Collect customer card data.

2

PROCESSING
Data is processed by Encoded.

3

or

PAYMENT GATEWAY
Data is transferred through a payment gateway to the bank/acquirer and is approved or declined.

NOTIFICATION
The agent gets an authorisation code or is notified that additional validation is required.

4

APPROVED
Payment is made.

or

ADDITIONAL VALIDATION REQUIRED
Different payment verification options are offered – OAUTH, 3D Secure, Verify.gov or AIS (affordability scoring).

5

or

SEND REQUEST
Link is sent to the customer either via mobile or email – for them to verify.

3.7 How does payment orchestration reduce transaction costs?

With a payment orchestration layer that supports intelligent, dynamic routing, transactions are sent to the most appropriate payment channel and the least cost acquirer at the time.
This reduces costs, increases conversion rates and improves cashflow.

3.8 Will it improve my customer experience?

Payment orchestration intelligently routes transactions to the most appropriate card scheme, based on cost, success rates and processing times. By dynamically selecting the best payment option at the point of transacting it protects against failed transactions. This optimises overall payment performance to increase approval rates and provides a smoother, more reliable customer experience.

4 Choosing the right technology partner

Choosing the right technology partner and independent provider will help ensure your payment orchestration platform can easily integrate with your existing systems, reduce the cost of transactions and meet with the necessary security compliance requirements. It will increase the number of successful transactions and the payment choices available to improve cashflow and smooth the customer experience.

Makes compliance easier
An independent payment orchestration layer consolidates all payments through a single platform via its payment gateway that checks and validates data. Built-in security features, such as fraud detection and data encryption, protect sensitive customer information helping businesses to comply with regulatory requirements.

Reduces costs
A payment orchestration layer can integrate with a variety of card issuers, card schemes, acquirers, gateways and open banking enabling merchants to work out the best possible terms and rates, while increasing conversion rates.

It supports intelligent, dynamic routing that sends transactions to the most appropriate payment channel and least cost acquirer at the time. This increases conversion rates and improves cashflow.

Improves customer experience
A standalone orchestration platform ensures a resilient payment ecosystem that benefits merchants and customers. By dynamically selecting the best payment option at the point of transacting it reduces the number of failed transactions to deliver a smoother and more reliable customer experience.

Simplifies the payment process

An independent, vendor-agnostic payment orchestration platform harmonises and simplifies payment, making it easier for businesses to manage and track transactions across different card issuers, card schemes, open banking and acquirers. It enables merchants to offer the latest payment options to customers, such as ApplePay, GooglePay, Samsung Pay and Open Banking.

Developer friendly

A payment orchestration platform uses a readily available dev friendly API, is easy to implement, enables user acceptance testing (UAT) and test environments – including test card data.

As an independent platform with one-to many API integration, it is easy to integrate with new payment service providers or add payment methods as needed, local or international, rather than connecting with third-party payment providers via different platforms or accounts. It allows businesses to grow without the need for significant infrastructure changes.

5 Payment orchestration in action

5.1 Increases acceptance and reduces costs

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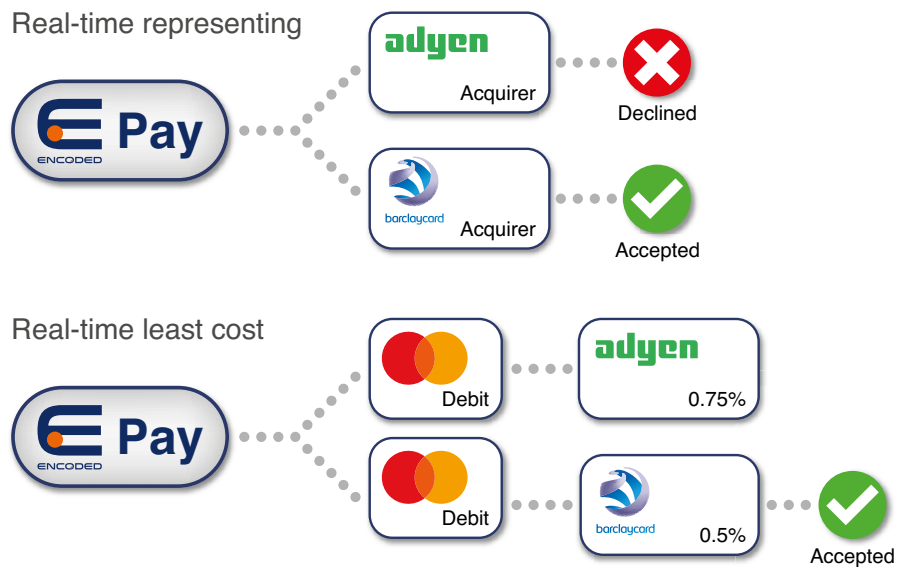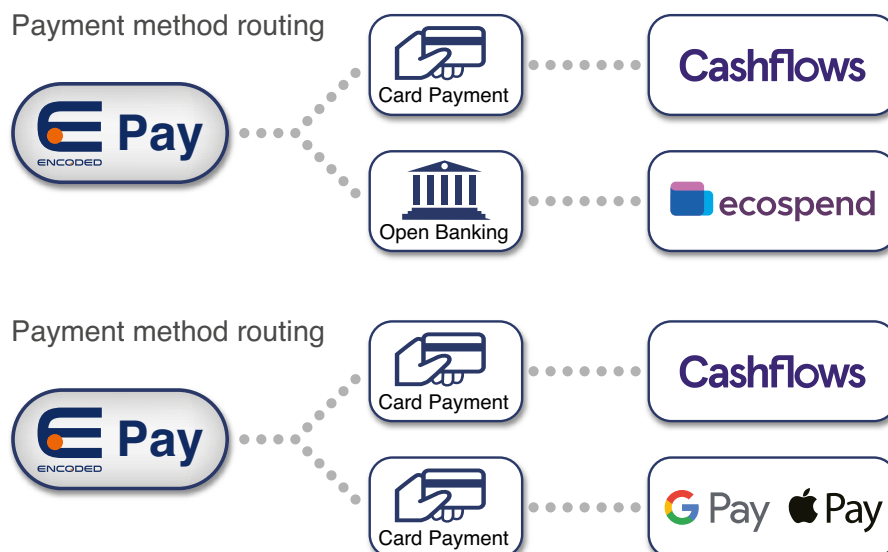
5.2 Domestic acquiring and reduces false flags

Geographic routing

Real-time MCC routing
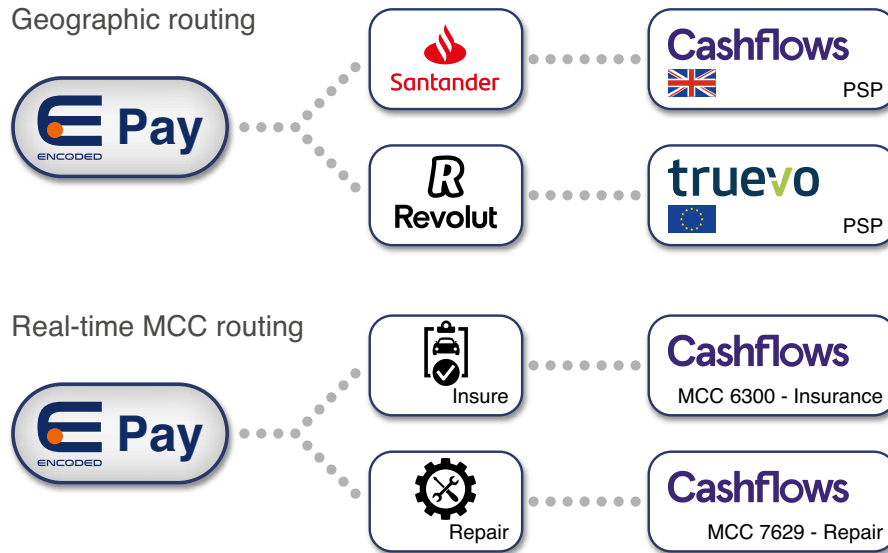
5.3 Uses multiple payment methods

APM's

- Apples / G Pay
- Open Banking
- Or a mix

Payment method routing

Payment method routing

6 Summary

Payment orchestration enhances workflows and improves processes for merchants to remain competitive and keep up with customer demand for a seamless payment experience. It is the process of integrating and managing the end-to-end payment process, including authorising payments, routing transactions, and handling settlements. It can help companies to be more agile and scale more rapidly.

An independent payment orchestration platform makes it easier for online businesses/merchants to connect their websites with different payment service providers, simplifying the back-end and front-end processes while also giving customers a choice of payment options.

Businesses/Merchants can also more easily enter new markets, integrate payment providers from different regions, and accommodate different currencies and payment methods while still complying with regulations.

7 Glossary of terms

Payment Orchestration Layer

A payment orchestration platform is a single software layer that enables the processing of secure, frictionless online payments from payer to payee. Payment orchestration helps organisations to manage the entire payment process, from payment authorisation to transaction routing and settlement.

Least-cost Acquiring

Different acquirers or as they are known – acquiring banks or merchant banks, charge different rates to merchants depending on various factors. Using the Encoded Payment Orchestration Platform with Encoded Payment Gateway you can enter the different rates you have been offered. Then when payment traffic is sent it will select the acquirer with the best rate.

Hosted Payment Fields

Hosted Payment Fields replace Hosted Payment iFrames which display a web page within a web page hosted by a payment service provider (PSP). They allow merchants to build their own checkouts in terms of brand and styling, while remaining PCI DSS compliant via the least burdensome Self-Assessment Questionnaire (SAQ A). Developers are happy because it means they don't have to refer to the supplier each time they want to make a change – the merchant remains in control.

Open Banking

Open banking is a method of enabling secure interoperability in the banking industry by allowing third-party payment service and other financial service providers to access banking transactions and other data from banks and financial institutions. It allows financial organisations to share customer details, such as balance and transactions with customer permission.

Developer Friendly API

A widely available application programming interface (API) makes implementation easy and for happy developers. It allows extensive and easy user acceptance testing (UAT) and testing environments with test card data. Combined with Hosted Payment Fields the developer friendly API (used by Encoded) provides merchants and their developers with control of the look and feel of their ecommerce payment pages.

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s e c u r e   a u t o m a t e d   p a y m e n t s

Secure Token Vault

A token vault is a secure centralised server where issued digital tokens, and the Personal Account Numbers (PAN) they represent, are stored securely. Security is important as the token vault is the only area in which the token can be mapped back to the consumer's original card details.
It is used often for recurring payments such as direct debits.

PCI DSS Scope

To implement the PCI standard you must start with scoping your organisation. This process involves identifying all system components that are located within or connected to the cardholder data environment (comprised of people, processes, and technology that handle cardholder data or sensitive authentication data).

Scoping is an annual process and must occur prior to the annual assessment. Merchants and other entities must identify all locations and flows of cardholder data to ensure all applicable system components are included in scope for the PCI Data Security Standard.
www.encoded.co.uk/pci-dss/

8 About Encoded

The payments challenges that your organisation faces may be complex, but the solutions don't have to be. Encoded specialises in providing innovative solutions and expert guidance to our customers and partners to help make the complex… simple.

Encoded is an independent payment services provider with a flexible payment orchestration platform and gateway. Encoded has the experience to help your organisation increase payment acceptance rates and comply with PCI DSS, GDPR and Payment Service Directive (PSD2) requirements.

Encoded's solutions are trusted by many of the world's leading brands including Mercedes-Benz, BMW, Mini, Toyota and retailers such as Samsung, Lush, The Wine Society plus a host of utility companies including Jersey Telecom, Shell Energy and Severn Trent Water.

Omni-channel solutions include:
- Agent Assisted Payments
- E-Commerce payments
- IVR Payments
- Fraud Prevention
- PayByLink Mobile Payments
- Encoded Gateway Services

For more information please visit
www.encoded.co.uk

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Protection Regulation