

Terminal Payment Services



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Terminal payment services, also commonly referred to as CHP or Cardholder Present, are those that provide the capability for a purchase to be made on a payment terminal with the card holder present, it is also possible to take payments over the telephone or by mail order (MOTO) subject to a suitable setup of the merchant account.

It is important to remember, as with any payment service, that there are 2 aspects involved in terminal payments, these are;

- **Processing** - This is the part of the transaction that gets the customer making the purchase routed through to the acquiring bank. Simply, the software which sits on the terminal enabling payment options to be securely routed to the acquiring bank.
- **Acquisition** - This is simply the banking aspect of the payments service. When the payment service provider processes the transaction, it is passed through to an acquiring bank for the credit or debit card transaction to be processed.

This process is essentially no different to an online transaction replacing the software application for a physical terminal to deliver the capability to process a card transaction and deliver it to the acquiring bank.

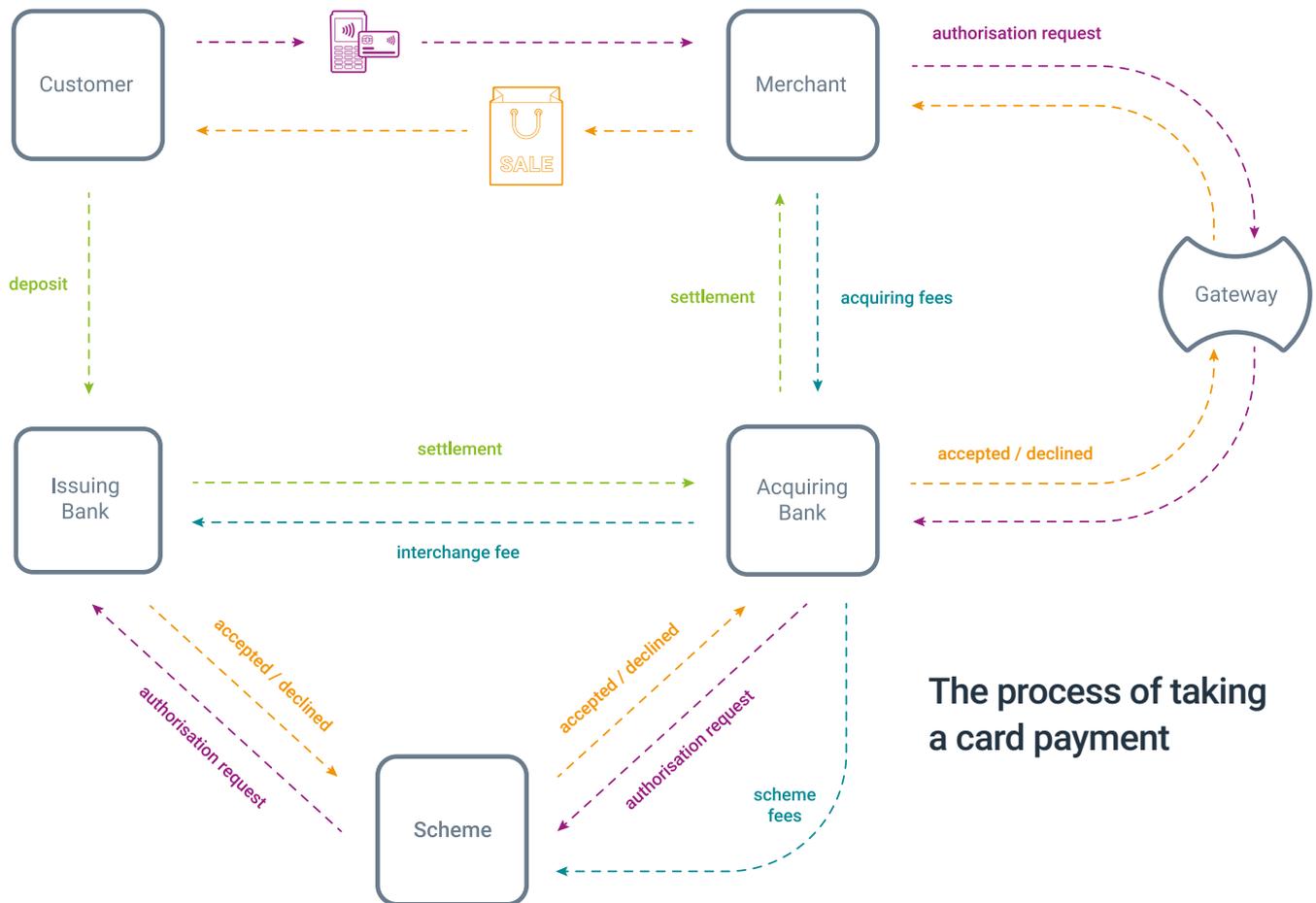
It is important to note that CHP & CNP services require 2 separate merchant ID's and need to be set up with the acquirer accordingly. Additional merchant ID's will be required for other card schemes such as AMEX.

NetPay also offers an additional service on selected terminals, namely Mobile Top-up (MTU).

This is the service that enables merchants to process mobile phone top-ups via their terminal to a large number of mobile networks.



Processing a Card Payment



The process of taking a card payment

Whilst over £50 billion is spent on card every month most are unaware of the parties involved in the process when a transaction is made by card. There are 5 parties involved, the Customer – the person who is making the payments, the Merchant – the business who is processing the transaction, the Acquiring Bank – essentially, the business who processes the card payment, the Card Scheme – which are networks such as Visa and MasterCard who work with both acquirers and Issuing Banks and lastly the Issuing Bank – the bank that was responsible for issuing the card to the customer.

The transaction process and the interface between all of these parties takes a matter of seconds despite the number of organisations involved. The same process is followed to identify whether a transaction can be approved or declined – typically a decision dictated by the availability of funds for that customer with the issuing bank. The acquiring bank, the card scheme and the issuing bank all take a share of the transaction charge that is billed to the merchant to process a transaction typically all billing is performed by the acquirer who pays the card scheme who then pays the card issuer. These established processes ensure the customer experience is quick and efficient.

Settlement is the process of moving the money electronically from the customers bank account into the merchants bank account. Finally the merchant is charged for each settlement and authorisation, this information is often presented in a monthly statement.

Terminal Overview



Countertop

Countertop models connect via a telephone line (PSTN) or a broadband connection (IP). Some models also have the option of connecting a Pinpad to the terminal, and are used when a consumer is separated from a cashier, such as in a post office or a petrol station. It is important to note that Pinpads do not have built-in receipt printers, and are not standalone devices, but are physically connected to the countertop terminal.



Wireless

Wireless terminals use **Bluetooth** to communicate to a base unit, which is connected via PSTN or IP. Wi-Fi models can be supplied with an access point. Customers may opt to use their own access point, but must be aware of their obligation under PCI compliance by ensuring their own device is not accessible to the public internet.



Mobile

Mobile terminals use **3G** or **GPRS** signal to achieve their connectivity. These terminals have a physical SIM card inside the device, like a mobile phone, but with a different configuration. NetPay's GPRS terminals are supplied with global roaming SIMs which enables the device to find the strongest available network to lock onto, providing the customer with the best opportunity to take payments while on the move.

These SIMs are also known as machine-to-machine SIMS (M2M) and only connect to a specified destination. They cannot be used as a standard mobile or mobile data SIM.

Options and Specifications

Terminals currently have mono or colour screen options, but mono is gradually being phased out by manufacturers in favour of colour screens. All terminals have Contactless and Near Field Communications (NFC) payment options as standard.

When a merchant has successfully applied for an account with an acquiring bank (through NetPay) and has been issued with their merchant I.D. (MID), they can then order a terminal of their choice to suit the type of business they run. The terminal will be given a unique I.D. number, known as a TID. This is used to identify the device for the duration of its useful life. The TID is linked to the MID for settlement of funds into a merchant's business bank account. It is supplied to the acquiring bank as part of the process of setting up a merchant to make their service live.

Most terminals supplied by NetPay use what is known in the industry as APACS40. This means the transaction is authorised and settled with the bank at the time of the payment transaction. Traditionally, many terminals have used APACS30/29, where the transaction is authorised (APACS30), but not settled immediately (authorised but not debited). The transactions are stored, and then bulk settled, usually overnight (APACS29).

Selecting your Terminal



Acquiring/Merchant Services

Acquiring/Merchant Services enables a merchant to physically take payments from a consumer's card. NetPay provides this service through its Independent Sales Organisation (ISO) relationships with the acquiring banks.

(see NetPay's Guide to Card Payments for more information on acquiring/merchant services)

Terminal Models, Manufacturers and Features

			 <small>Transaction. Interaction. Convergence.</small>	
	Ingenico Group	Verifone	Spire Payments	PAX Technology
Countertop	iCT250	VX520	SPc5	S800
Countertop with Pinpad	iCT250/iPP350	-	SPc5/SPp10	-
Bluetooth	iWL252 BT	VX680 BT	-	-
Wi-Fi	-	VX680 Wi-Fi	Spg7 Wi-Fi	S900*
Wi-Fi Access Point	-	-	(Optional)	-
GPRS	iWL251 GPRS	VX680 GPRS	SPg7 GPRS	S900*
Semi-Integrated (EPOS)	iPP350	-	-	-

Payment Terminal Care



Peace of mind for your business

Our team of experienced, skilled and trusted technical support team are on hand 24 x 7 to provide UK based technical support over the phone. In addition to our standard terminal service support NetPay offers an additional option to upgrade to Silver Care with an onsite engineer if required, and includes accidental damage cover. Gold Care has loss and theft added to provide complete peace of mind.

NetPay's payment terminal care packages provide customers with personalised support from card terminal engineers for all our terminal range.

NetPay is one of only a very few payment service providers to offer this specialist service to customers, which uses a UK-based experienced and skilled technical support team. The professional team are on hand 24 x 7 to provide support, over the telephone or face to face. Most issues will be resolved remotely over the telephone, but should this not be possible, and the customer has Silver or Gold Care, then arrangements will be made to despatch an engineer to the customer's site to remedy the issue in situ.

Care packages offer a Service Level Agreement of 4 hours to reach a customer's site, subject to the conditions below (please refer to the map, which shows the exclusion zones).

Certain remote parts of the UK cannot be reached by an engineer within the service level agreement timescales, and are therefore excluded from taking the Care packages (a more detailed map of the UK exclusion zones is available upon request). However, in practise, as these remote UK regions are very sparsely populated, it is very rare for a customer to be rejected from taking Care Packages based on their location.

Customers taking Silver Care, benefit from their terminal being covered for accidental damage. With Gold Care, the cover is extended further to include the loss and theft of a terminal as well as covering the customer for accidental damage to the terminal, as provided by the Silver Care.

If a terminal becomes faulty and a replacement is required then, providing a support call has been received prior to 15:00, a replacement terminal will be on site the next working day, Monday to Friday.

Features	Enhanced Silver Care	Enhanced Gold Care
24/7 x 365 Service Support Desk providing telephone technical support for any operational difficulties	●	●
Onsite engineer to troubleshoot terminal issues from Monday to Friday, between the hours of 08:00 to 17:00	●	●
Onsite within 4-hours Service Level Agreement	●	●
Bank & Public Holiday Cover	○	●
Accidental Damage Cover	●	●
Loss or Theft Cover	○	●

Managed Installation Service



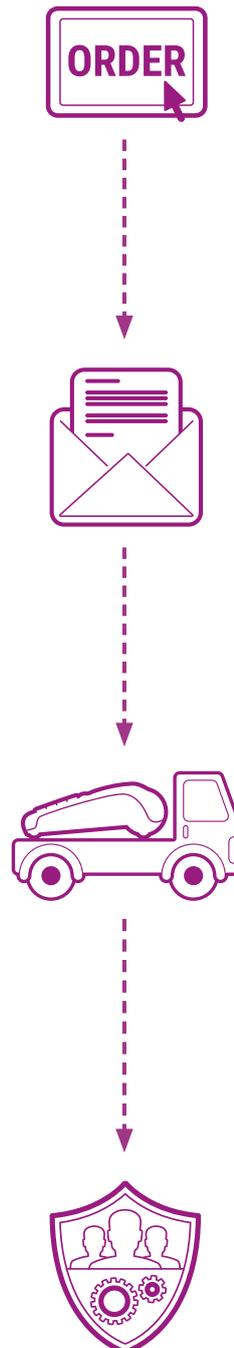
Taking away the worry of installation

NetPay Managed Install provides businesses with personalised face to face support and installation of their new terminal device. Giving you peace of mind that your card payment terminal is set up, in working order and ready to start taking those all-important payments.

Our team of professional, experienced and skilled technical engineers are available to visit your premises to set up and install your terminal between 8am and 5.30pm Monday to Friday.

The Benefits

- Takes away the worry of installation
- Let our expert engineers check your connectivity
- Ideal for multiple outlets – let our engineers install the service, letting you carry on with your business
- Peace of Mind



Place your terminal order

The managed installation service (at a time convenient to you) will be ordered at the point when the terminal order is placed.

Confirmation

When the terminal is dispatched, an email notification will be sent to you confirming the time window of our engineer's installation (this is typically the day after receiving the terminal).

Terminal Delivery

Your terminal will be delivered to your site, by courier.

Delivery tracking numbers are available, via a customer's Revolution portal or by contacting NetPay's customer services, on the scheduled day of delivery.

Engineer Installation

The engineer will arrive to install your terminal on the agreed appointment date and time.

Dynamic Currency Conversion (DCC)

What is DCC?

Dynamic currency conversion (DCC) is a point-of-purchase service where international Visa and MasterCard card users can choose to pay in their own currency, rather than the domestic currency being used in the country where they are making their purchase. This removes the unpredictability of the foreign exchange rate provided by the customer's bank when making international purchases as it presents the exchange rate at the time of purchase, so debiting the transaction in the local currency.

DCC is frequently used in hotels and restaurants as well as in tourist hot spots and serves as an opportunity to not only remove the unpredictability for consumers but also as a revenue generation opportunity for the merchant.

NetPay's partner bank, First Data Merchant Solutions (FDMS) has collaborated with FEXCO, the premier provider of DCC to merchants from all sectors including airline, retail, hospitality, duty free, surface transport and entertainment sectors. As a result of this collaboration FDMS has enabled NetPay Merchant Services to provide a DCC service to qualifying merchants.

How does it work?

A merchant needs to process a minimum of £150,000 per annum in foreign exchange (FX) to qualify for a DCC merchant account with FDMS.

Using a specially configured terminal device the consumer inserts their card as normal, but before entering their pin they will be asked if they wish to debit in the local currency or in their home currency. An equivalent cost in their home currency, using a live foreign exchange rate, will be presented to them at the point-of-purchase when they will have the option to select or continue to purchase in the local currency.

An FDMS DCC application form will need to be completed.

Merchant accounts with DCC requirements take 48 hours longer to be approved than a standard merchant acquiring account, partly due to the manual boarding process used for the DCC platform.

There is also a manual boarding fee for the DCC platform per MID (Merchant Identification Number) which is payable by the merchant.

The Terminal

As the terminal device requires specialist configuration the supply and model selection is different to the standard NetPay offer.

The terminal manufacturer used for the DCC service by FDMS and FEXCO is Verifone. It covers all connectivity types:

Fixed (corded) models with dial-up (PSTN) or broadband (IP) connectivity, Bluetooth and Wi-Fi as well as GPRS with a multi-network roaming SIM card.

Terminals are available on a 36 or 48 month lease, which requires a First Data Global Leasing (FDGL) contract to be completed. Support for these terminals is provided by FDMS and FEXCO rather than via the usual NetPay support team given the bespoke nature of the configuration.





The Commercials

Merchants earn commission on their total foreign exchange (FX) monthly transactions. This can typically become a material revenue source for busier locations which are popular with International tourists, often off-setting the total cost of the transaction charges for non-International cards. The commission is paid directly to the merchant from FEXCO.

Merchants will need to be PCI compliant in the usual way and pay the monthly PCI charges to be enrolled in the PCI program.

There is a transaction processing cost as part of the merchant services, payable by merchants across all transactions.

DCC Benefits for Cardholders

Convenience	Cardholders know how much they are spending in their home currency.
Transparency	Full transparency on competitive foreign exchange rates and margins at the point of purchase.
Customer Choice	Cardholders are given full choice to accept DCC or not when making their purchase. Full visibility of the exchange rates and margin applied are provided.
Exchange Rate	Benefit from a locked-in competitive exchange rate when making a purchase.
Business Travel	Simplifies expense account claims for business travellers.
No Additional Cost	DCC is not an additional cost or fee. It replaces the normal currency conversion process applied by card schemes and issuers.

Summary

FEXCO will provide every DCC enabled merchant with an Account Manager to support them with best practices, training and support. Merchants will be targeted to achieve greater than 60% conversion rates on DCC.

Merchants will need to contract with:

NetPay Merchant Services, First Data Merchant Solutions (FDMS), First Data Global Leasing (FDGL), FEXCO and if relevant American Express (AMEX).

NP Integrate

Semi-Integrated Payment Environment

Semi-integrated payment solutions limit the necessity for communication between the PIN pad and the EPoS system to non-sensitive exchanges. Instead it is encrypted and routed directly from the smart terminal to the merchant's card processor or gateway, improving security, simplifying the chip and pin process, meeting PCI compliance processes and therefore reducing the cost of chip and pin acceptance.

Key Benefits:

- Streamlines chip and pin migration and certification
- Improves security by eliminating sensitive data from the EPoS (electronic point of sale)
- Simplifies PCI compliance by reducing the cardholder data environment
- Processor and gateway agnostic
- Widely available SDKs (software development kits) based integration – provides "quick to market" cost effective solution
- Generic drivers such as uPOS, JavaPOS etc are available and supported by the existing POS systems

Semi-Integrated Solution

An integrator links an EPoS to an Ingenico corded terminal (PIN pad) iPP350 or iWL252 (Bluetooth terminal), so the EPoS can send the transaction amount directly to the terminal reducing the risk of error and fraud.

A software development kit includes source and executable code for a EPoS test application, so integrators can explore the features of the semi-integrated solution and access the relevant source code. This will provide examples of how the functions of this API may be used, although the exact functions will be specific to the environment. The EPoS test application also enables integrators to confirm the PIN pad is working correctly, which is useful should they encounter problems during their own integration.

Development Environment

The table below shows the operating systems and connection methods supported by Ingenico:

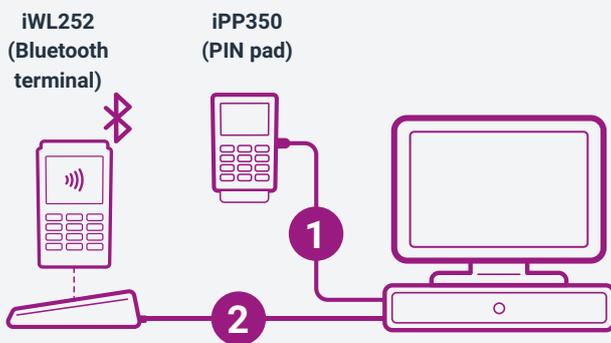
Ingenico PIN pad	EPoS Operating System	Connection to EPoS	Connection to acquirer / GEMS
iPP350 PIN pad, no integrated printer 	Windows CE	Ethernet	Through POS
	Windows XP	RS232	
	Windows XP	Ethernet	
		USB	
		RS232	
	Windows 7	Ethernet	
	Windows 8	Ethernet	
	Linux (Ubuntu & Fedora)	Ethernet	
USB			
RS232			

Ingenico terminal	EPoS Operating System	Connection to EPoS	Connection to acquirer / GEMS
iWL252 Portable terminal using Bluetooth technology to base unit attached to POS 	Windows XP	USB	Ethernet direct into LAN
	Windows 7		
	Windows 8		
	Linux (Ubuntu & Fedora)		



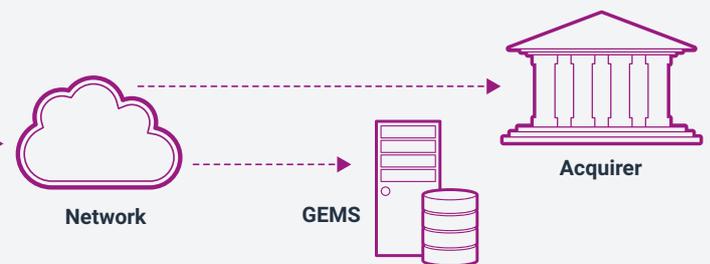
1 The standard configuration of EPoS and PIN pad connectivity using an iPP350

The iPP350 PIN pad does not provide an integrated printer, receipts conform to APACS, scheme and acquirer rules and are streamed to the EPoS.



2 The standard configuration of EPoS and terminal connectivity using an iWL252

The iWL252 is a portable terminal using Bluetooth technology to communicate between the handset and base unit, the base is connected to the EPoS by cable. It provides an integrated printer, receipts conform to APACS, scheme and acquirer rules. All merchant prompts and receipt printing is carried out on the handset.



Testing

A test iPP350 PIN pad or iWL252 terminal can be purchased along with a set of cards to test your software processes payments correctly for a selection of different card types, schemes and scenarios.

The table below shows you the cards, pack options and their features:

Basic Pack	Extension Pack
VISA Credit card	Blocked VISA Credit Card
VISA Debit card Dual	Expired VISA Credit Card
MasterCard Credit card Dual	VISA Debit Card with PIN and Signature
MasterCard Debit card Dual	MasterCard Credit card with 1 PIN try remaining
Maestro Debit card	MasterCard Debit card with blocked PIN
Electron Debit card	Domestic card
Diners Club Credit card	VISA card that causes fallback to magstripe
	VISA card Dual that causes fallback to chip

Key Benefits:

- Test packs are made to order and can be produced with any currency and country of issue
- A dual card is one where both contact and contactless payments are enabled
- The country and currency codes are printed on the test cards
- The public keys for these test cards are industry standard and are loaded on the FDMS (First Data Merchant Services) test simulator, so your cards will work instantly
- There is no PIN pad configuration required for test cards

EPoS Accreditation

When the EPoS software has finished its development phase, it will require accreditation by the acquirer.

NetPay will sponsor and expedite this part of the solution on behalf of the customer, if the accreditation is successful then the acquirer will issue an Approval Certificate. There may be costs associated with this which will be discussed at the start of the process.

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