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The Speakers

Tracy Maxi
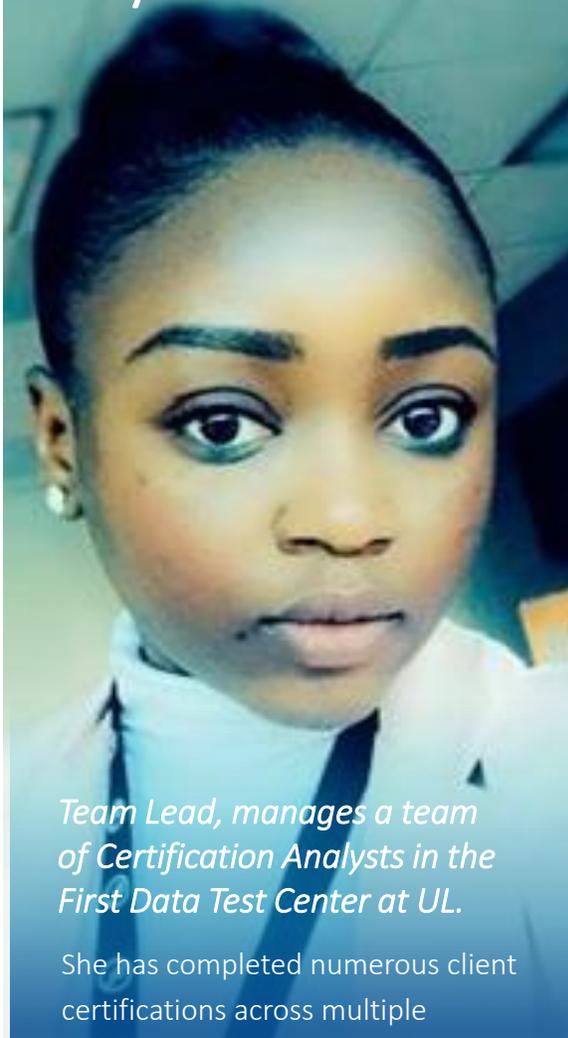
Team Lead, manages a team of Certification Analysts in the First Data Test Center at UL.

She has completed numerous client certifications across multiple certification devices, including indoor and outdoor devices for the petrol industry. Tracy and her team work directly with the major card brands to validate First Data client test results and evidence to turn these into certifications.

Lee Thompson

AFD Testing and Certification Manager, has managed Major Oil client certifications throughout the United States.

He is responsible for managing UL's Test Center Lab in Atlanta, Georgia that provides testing and certification services for Petrol clients. His team is a leader in the industry with certifying the market's top fuel pumps, (i.e, Wayne iX, Optic, and Gilbarco).

Ed Perez

EMV Program Management, a tenured Payments veteran with both Issuer and Acquirer Experience.

He is involved with all aspects of EMV Testing and Certification across various First Data Front and Back End platforms. Ed provides EMV direction and consultation. He is a member and Co-Chair candidate of the US Payments Forum Testing and Certification Working Committee.

POS PINless:
PINless Debit for any amount

Ed Perez
First Data EMV Certification
24-JUL-19

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Agenda

› **Purpose**

› **Definition**

› **POS PINless**

› **Ineligible Scenarios**

› **Conclusion**

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Purpose

› The goal of this presentation is to:

- Reintroduce POS PINless for transactions for any amount (above and below $50)

- Require that all Partner solutions support POS PINless

- Discuss POS PINless parameters

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Definitions

› <u>Dual Message aka 'Credit'</u>

  – Two messages used to complete a transaction known as Authorization and Batch Settlement / Clearing.   This is how First Data processes MasterCard and Visa transactions.

› <u>Single Message aka 'Debit'</u>

  – One message used for auth and settle

    • NOTE: Petroleum transactions could require 2 messages (preauth and completion - all done online) but still considered 'Single Message processing'

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POS PINless: Level Set

› POS PINless is the new term for Card Present transactions previously called 'PINless POS Debit' and 'STAR Access Signature Debit'.

› POS PINless can support transactions for any amount above or below $50:

  – <$50 – (FKA PINless POS Debit) with proper indicators and entitlements

  – Any amount – Signature Debit with proper indicators and entitlements

› The Entry Mode can be magswipe, contact or contactless EMV (CP only)

  – Keyed transactions will never route for POS PINless

› Integrated Partners are required to support both on every transaction regardless of amount

› Clearing may vary for signature POS PINless and non signature POS PINless

  – Signature Debit will be a 3rd type of transaction alone with credit and debit.

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POS PINless: Level Set

› Nine (9) debit networks supporting POS PINless transactions $50.00 or less (as 'debit') on the North and Buypass platforms (see slide 8 for platform combinations).

– ACCEL, AFFN, CU24,Jeannie, Maestro (Visa cards only) , NYCE, Pulse, Shazam, STAR

- Issuers are liable for $50 or less POS PINless (Assuming EMV card at EMV device).

› Three (3) other debit networks are enabled for POS PINless transactions over $50 (as signature debit).

– ACCEL, NYCE, Pulse (Conditional)

- Dispute rules may vary for >$50 transactions.   Most Networks are aligned with major brand dispute rules.

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POS PINless: Level Set

› Merchant profile must be enabled to support POS PINless

› Merchant sends transaction in a "Credit / Dual Message" request and must review message response with the following:

– appropriate Tag Data / Indicator in request message indicating device supports POS PINless (please see Appendix)

– receiving a Network Label ID in response

– printing the Network Label on receipts and report

› For EMV only a US Common Debit AID only

– Must be 'No CVM' and ***not*** a 'Failed' or 'Unknown' CVM

– Solutions must support Auto Select of US Common AID for Mastercard, Visa and Discover

– UnionPay Common Debit AID is not eligible

› No CVM Kernel Configuration via:

– No CVM Only, Selectable Kernel or PIN Bypass

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POS PINless: PIN Bypass

› Cardholder may manually skip PIN when prompted for CAID

› PIN Bypass is supported in most kernel configurations

› PIN Bypass recommended for any PIN supporting solution

› PIN Bypass is **_not_** allowed on the following AIDs:

   – Maestro (A0000000043060),

   – Interlink (A0000000033010)

   – Interac (A0000002771010)

   – UnionPay CAID (A000000333010101)

   – DNA Shared AID (A0000006200620)

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POS PINless: Supported Platforms

POS PINless: <$50	
Front End	**Back End**
North/Nashville	North
North/Nashville	South
North/Nashville	Prop
BuyPass	Memphis
BuyPass	North
BuyPass	South
BuyPass	Prop

POS PINless: <>$50 Any Amount	
Front End	**Back End**
North/Nashville	North
North/Nashville	South
Compass*	North
BuyPass	North
BuyPass	Memphis

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Ineligible Scenarios: NO CVM

› Single/Debit message formatted transaction

› Merchant does not participate in POS PINless

› POS device does not support POS PINless

› EMV transaction has either Global Credit or Global Debit AIDs

› EMV transaction was initiated with the Interac AID

› Online PIN, Offline PIN, ODCV (On Device Cardholder Verification) or signature are present in Tag 9F34

› Final Amount Indicator in message

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Ineligible Scenarios: MCCs

MCC	Merchant Description
4813	Key-entry Telecom Merchant providing single local and long distance phone calls using a central access number in a non-face-to-face environment using key entry
4829	Money Transfer
5542	Fuel Dispenser Automated
5960	Direct Marketing Insurance
5962	Direct Marketing Travel-Related Arrangement Service
5964	Direct Marketing Catalog Merchants
5966	Direct Marketing Outbound Telemarketing Merchants
5967	Direct Marketing Inbound Telemarketing Merchants
5968	Direct Marketing Continuity/Subscription Merchants
5969	Direct Marketing Other Direct Marketers not elsewhere classified
6010	Member Financial Institution- Manual Cash Disbursement

MCC	Merchant Description
6011	Member Financial Institution-Automated Cash Disbursements
6012	Financial Institution- Merchandise and Services
6050	Quasi Cash – Member Financial Institution
6051	Quasi Cash – Merchant
6531	Payment Service Provider – Money transfer for a purchase
6532	Payment Transaction – Member Financial Institution
6533	Payment Transaction – Merchant
6534	Money Transfer – Member Financial Institution
7995	Gambling Transactions
9405	Intra-Government Purchases – Government Only
9700	International Automated Referral Service
9702	GCAS Emergency Services
9754	Gambling – Horse Racing, Dog Racing, State Lotteries
9950	Intra-company purchases

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Conclusion

› Put simply:

– Send It

   • Request in a 'Dual/Credit' message with all POS PINless Indicators

– First Data will then 'figure it out'

   • Evaluate message indicators against merchant profile entitlements and route accordingly

– First Data will route and let you know

   • Be aware that the Response message will include where and how routed

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Appendix: POS PINless Related Specs/Fields

FUNCTION/SPEC	ISO8583 (North/Nash)	Rapid Connect (N/N/BP)	ATL105 (BuyPass)	Host & Controller	ISO8583 (BuyPass)
POS PINless: <$50	Table SD/Tag 'OC' = 1	PLPOSDebitFlg =1	Table ID 021 Settlement Data Acceptance Flag = 1	Element 142 Settlement Data Acceptance Flag = 01	Table ID 029 Settlement Data Acceptance Flag = 1
POS PINless <>$50	Table SD/Tag 'OC' = 2	NetAccInd = 1	Table ID 021 Settlement Data Acceptance Flag = 2	Element 142 Settlement Data Acceptance Flag = 02	Table ID 029 Settlement Data Acceptance Flag = 2
Network Confirmation	Table SD/Tag 'NL Table SD/Tag 'RI'	AthNtwkID PLPOSDebitFlg NetAccInd	Table ID 018 PINless Debit Information Element 7 Authorizer Code	Element 142 Settlement Data Acceptance Flag Element 8: Authorizer Network ID	Table ID 29 Settlement Data Acceptance Flag Table ID 02 Authorizer Network ID
ATTENTION: Use of the below fields will override POS PINless capabilities					
Final Amount Indicator (keeps txn 'credit')	Table SD/Tag 'DC' = C	FinAmtInd =1	Table ID 040 =1	Element 179 = 1	Table ID 039 = 1

Please consult with your Technical Solution Consultant for information on other specs/platforms.

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Unattended POS/Terminal

Cardholder Activated Terminals (CAT)

Lee Thompson

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Cardholder Activated Terminals (CAT) Transactions

❯ Examples of unattended POS/terminals include ticket dispensing machines, vending machines, automated fuel dispensers (AFDs), toll booths, and parking meters.

❯ Every unattended POS/terminal transaction must be identified with the appropriate CAT level indicator value in authorization and clearing messages as follows below:

Level	Description
CAT 1	Automated Dispensing Machines
CAT 2	Self-Service Terminals
CAT 3	Limited Amount Terminals
CAT 4	In-Flight Terminals
CAT 6	Electronic Commerce
CAT 7	Transponders
CAT 9	Mobile Point of Sale (MPOS)

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Automated Dispensing Machines (CAT 1)

› Generally dispenses something of high value

› Hybrid only terminal (contact plus contactless)

› The following CVM requirements apply to CAT 1 devices:

– Must accept PIN as the CVM

– Must support online PIN and may also support offline PIN and Consumer Device CVM (CDCVM)

  • Online PIN is mandatory for magnetic stripe transactions

  • PIN (online or offline) is mandatory for contact chip transactions

  • Either online PIN or CDCVM must be used for contactless transactions

– Must not support only offline PIN

– Must not perform CVM fallback

– Must not accept signature or "No CVM"

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Automated Dispensing Machines (CAT 1) continued

› The following authorization requirements apply to CAT 1 devices:

  – All magnetic stripe transactions, regardless of amount, must be authorized online by the Issuer

  – An EMV transaction must be authorized online by the Issuer

› In addition, the following applies:

  – There is no maximum amount limit

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Self-Service Terminal (CAT 2)

❯ Generally dispenses something of low value, where speed at the terminal is vital

❯ The following CVM requirements apply to CAT 2 devices:

  – Must accept "No CVM"

  – Must not accept signatures or PIN (offline or online)

❯ The following authorization requirements apply to CAT 2 devices:

  – All magnetic stripe transactions, regardless of amount, must be authorized online by the Issuer

  – An EMV transaction must be authorized online by the Issuer

❯ In addition, the following apply:

  – There is no maximum amount limit

  – Hybrid POS/terminals must be capable of performing fallback procedures to magnetic stripe, unless prohibited by region

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Dual Capability for CAT 1 and CAT 2

› Dual capability allows a CAT device to identify each transaction as CAT 1 or CAT 2, depending on the use of PIN (online or offline) or Consumer Device CVM (CDCVM)

IF…	THEN…
A Cardholder is prompted for a PIN or CDCVM and enters a PIN (online or offline) or completes CDCVM	The Acquirer must identify the transaction with CAT Level 1 indicator
A Cardholder is not prompted for a PIN or CDCVM and does not enter a PIN (online or offline) or does not complete CDCVM	The Acquirer must identify the transaction with CAT Level 2 indicator

› A CAT device that supports offline PIN, CDCVM or both, but not online PIN, must have dual capability as a CAT 1 and CAT 2 device and comply with all CAT 2 requirements (including "No CVM")

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Limited Amount Terminals (CAT 3)

› The unattended POS/terminal is offline

› Use of CAT 3 is restricted to the following Merchant Category Codes (MCC)

  – 4684 – Tolls, bridge, and road fees

  – 7523 – Automobile parking lots and garages

  – 7543 – Car washes

  – 5488 – Miscellaneous food stores (e.g. convenience stores)

› The following CVM requirements apply to CAT 3 devices:

  – Must accept "No CVM"

  – May accept offline PIN for contact chip transactions, in accordance with the security requirements for PIN and key management

  – Must not accept signature

  – Must accept Consumer Device CVM (CDCVM) for contactless transactions

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Limited Amount Terminals (CAT 3) continued

› The following authorization requirements apply to CAT 3 devices:

  – Must not have online capability. EMV transactions may be authorized offline.

  – Must check the account number against the Electronic Warning Bulletin when the device has the capability

› The following maximum transaction amount requirements apply:

  – The maximum transaction amount for contactless transactions must be the same as for contact chip and magnetic stripe transactions

  – For contactless devices, the maximum transaction amount is the CVM limit for the merchant location (varies).

  – For CAT 3 transactions identified with MCC 7523, the maximum transaction amount is $40, or its local currency equivalent.

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Which CAT level indicator is this device?

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Which CAT level indicator is this device?

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Contactless AFD/Petrol

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A quick overview

What is an AFD?

› AFD, which stands for Automated Fuel Dispenser, is the common term in our industry for the payment terminal at a fuel pump

Are there specific CVM requirements for AFD Certifications?

Contact Interface	Contactless Interface
✓ Online PIN	✓ Online PIN
✓ Offline PIN	✓ Consumer Device CVM (CDCVM)
✓ No CVM	✓ No CVM

What are the contactless CVM limits per brand for AFDs?

› As per Visa Fleet and Automatic Fuel Dispenser Recommendations, as well as M/Chip Requirements for Contact and Contactless, CVM limit at AFDs is set to $0

› While there is no preferred CVM limit for Discover or AMEX, and the value should align with requirement from Visa and Mastercard, respectively

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Contactless AFD Pre-Auth and Completion

1 - Tap card

Time < 0.5 s

2 - Pre-Auth. Request → recommended to be maximum pump amount

7 - Auth. Resp.

8 - Completion

Issuer

Processor

Issuing bank

4 - Auth. Req.

5 - Auth. Resp.

Payment Network

3 - Auth. Req.

6 - Auth. Resp.

Acquirer

Processor

Acquiring bank

Online CTLS risk management
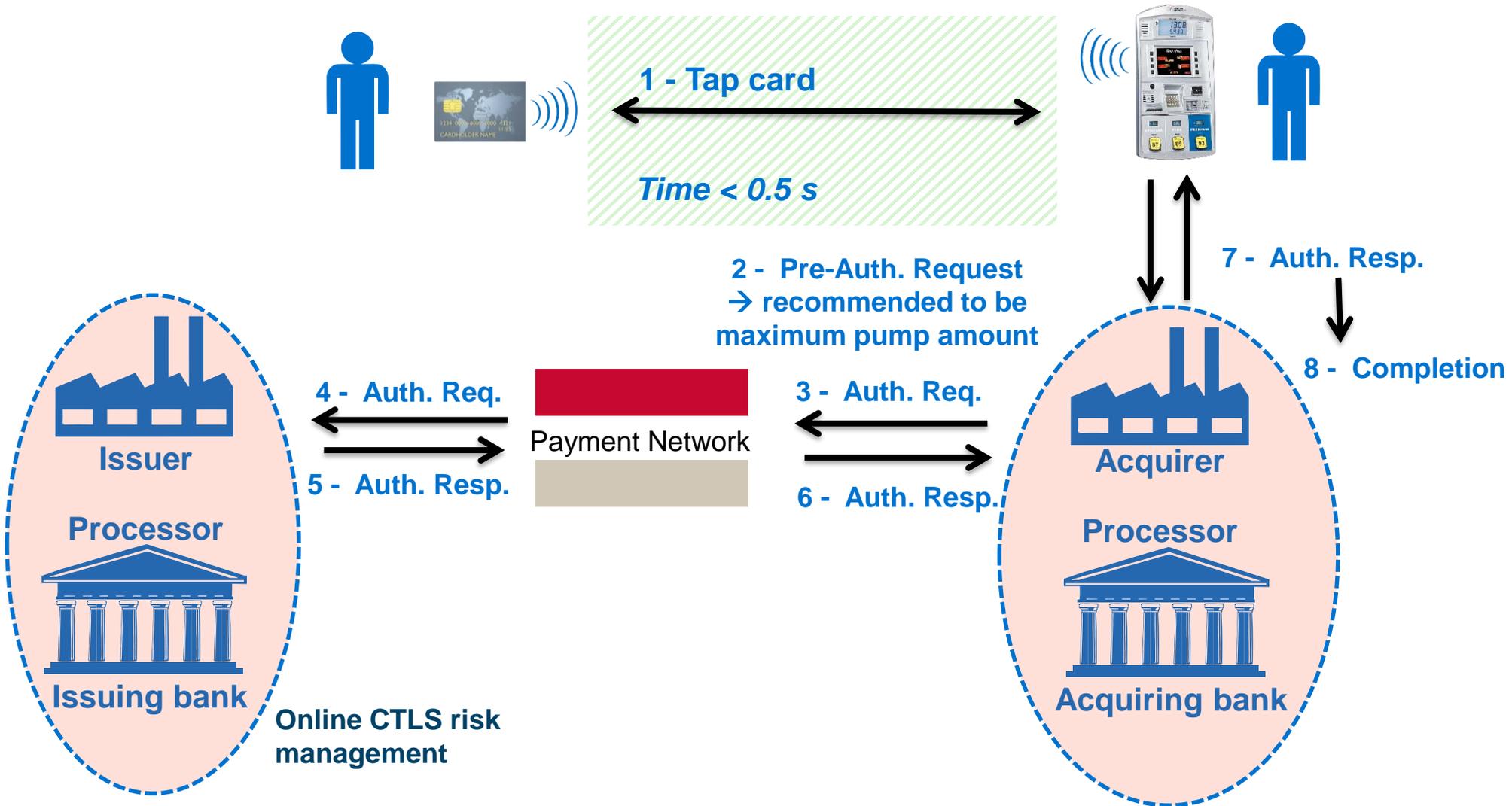
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After pre-authorization, how soon must completion be sent?

a) 30 minutes

b) 60 minutes

c) 90 minutes

d) 120 minutes

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Contactless Pre-Tap

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Overview of Contactless Pre-Tap

› Pre-Tap enables the customer/Cardholder to initiate the payment, by "tapping" the terminal with a contactless card, before the final transaction amount is known

– Due to the similar nature of the tender process, Contactless Pre-Tap is often referred to as Contactless Quick Chip

› The POS activates the card reader by using a provisional, or placeholder, transaction amount

› Currently, there are four major Brands (American Express, Discover, Visa, and Mastercard) that support Contactless Pre-Tap

– Each brand published their own bulletin that covers requirements and process on how to perform these type of transactions

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American Express (AMEX)

› An online authorization is required for all transactions by implementing a zero floor limit

› The process that implements a placeholder amount will be configurable and also proprietary to the terminal. If configured, a placeholder amount will be enabled for all American Express EMV contactless transactions.

› The placeholder amount may be less than, or greater than, the Cardholder Verification Method (CVM) required limit which is recommended to be $50

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Discover

› Placeholder amount is used until the final transaction amount is known, and transaction processing takes place with the following exceptions:

- No card updates

- No offline authorization response if an online authorization response is not available

- No support at ATMs

- All offline customer relationship management (CRM) processes that use transaction amounts are based on the placeholder amount, not the final amount

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Visa

❯ Transactions that select the Visa application identifier (AID):

	Transaction Amount Not Known at Time of Tap	Transaction Amount Known at Time of Tap
CVM Limit?	Set CVM limit to zero	Optionally set a CVM limit. If transaction value under limit → No CVM
Mobile Transactions	CDCVM applies above CVM limit	CDCVM applies above CVM limit
Signature preferring cards	Optionally capture signature (not required)	Optionally capture signature (not required)
Online PIN preferring cards	Capture PIN while scanning goods	Capture PIN while scanning goods

❯ Transactions that select the Common AID:

	Transaction Amount Not Known at Time of Tap	Transaction Amount Known at Time of Tap
CVM Limit?	Set CVM limit to zero	Optionally set a CVM limit per merchant business needs
Mobile Transactions	Capture PIN while scanning goods	Capture PIN if over CVM limit
Online PIN preferring cards	Capture PIN while scanning goods	Capture PIN if over CVM limit

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Mastercard

› For environments where transaction amounts are unlikely to exceed the CVM/ Quick Payment Service (QPS) limit, merchants may wish to configure a placeholder amount that is lower than the CVM/QPS limit

 – This results in no Cardholder verification being requested

 – If final amount happens to be greater than the CVM/QPS limit, merchant can either accept the potential risk or restart the transaction using the final amount

› For mixed amount environments, where proportions of transaction amounts will be both above and below the CVM/QPS limit, the placeholder limit should be set higher than the CVM/QPS limit

 – If CVM processing requires a PIN to be entered or a signature to be captured, then these should only occur if the final amount is greater than the CVM/QPS limit

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Can merchants enable Contactless Pre-Tap for only one Brand?

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Can debit cards qualify for Contactless Pre-Tap?

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