

Oracle® Retail EFTLink

Validated OPI Partners Guide

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Oracle® Retail EFTLink Validated OPI Partners Guide, Release 20.0.1.

Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document.

Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
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If you find any errors or have any other suggestions for improvement, then please tell us your name, the name of the company who has licensed our products, the title and part number of the documentation and the chapter, section, and page number (if available).

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Preface

This guide serves as a best practice guide for ensuring secure operation of Oracle Retail EFTLink. Installation and configuration are covered in more detail in separate guides as listed in the Related Documents section below.

Audience

This Installation Guide is for the following audiences:

- System administrators and operations personnel
- Database administrators
- System analysts and programmers
- Integrators and implementation staff personnel

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<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

For more information, see the following documents in the Oracle Retail EFTLink Release 20.0.1 documentation set:

- *Oracle Retail EFTLink Release Notes*
- *Oracle Retail EFTLink Core Configuration Guide*
- *Oracle Retail EFTLink Framework Installation Guide*
- *Oracle Retail EFTLink Xstore Compatibility Guide*

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

<https://support.oracle.com>

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 20.0) or a later patch release (for example, 20.0.x). If you are installing the base release, additional patch, and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

Improved Process for Oracle Retail Documentation Corrections

To more quickly address critical corrections to Oracle Retail documentation content, Oracle Retail documentation may be republished whenever a critical correction is needed. For critical corrections, the republication of an Oracle Retail document may at times not be attached to a numbered software release; instead, the Oracle Retail document will simply be replaced at the Oracle Help Center (OHC) website (docs.oracle.com), or, in the case of Data Models, to the applicable My Oracle Support Documentation container where they reside.

This process will prevent delays in making critical corrections available to customers. For the customer, it means that before you begin installation, you must verify that you have the most recent version of the Oracle Retail documentation set. Oracle Retail documentation is available at the Oracle Help Center at the following URL:

<https://docs.oracle.com/en/industries/retail/index.html>

An updated version of the applicable Oracle Retail document is indicated by Oracle part number, as well as print date (month and year). An updated version uses the same part number, with a higher-numbered suffix. For example, part number F123456-02 is an updated version of a document with part number F123456-01.

If a more recent version of a document is available, that version supersedes all previous versions.

Oracle Retail Documentation at the Oracle Help Center

Oracle Retail product documentation is available on the following website:

<https://docs.oracle.com/en/industries/retail/index.html>

(Data Model documents are not available through Oracle Help Center. You can obtain them through My Oracle Support.)

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Overview

Oracle Payment Interface (OPI) is a payment card-processing interface that integrates with the Oracle Hospitality Point-of-Sale (POS), OPERA, Suite 8 (PMS) and Retail (POS) systems. It defines a standard interface that partner payment service providers can implement to provide credit card processing functionality to Oracle Hospitality OPERA, POS and also Oracle Retail Point of Sale (POS) Systems.

This guide provides information relating to the OPI transaction types for compatibility of Xstore and EFTLink for payment terminal functionality of each Oracle payment partner.

Where the Oracle payment partner does not support an OPI transaction type that is supported by Xstore and EFTLink, it will be left blank to show that there is a gap in that Oracle payment partner's solution. It will be up to the Oracle payment partner or system integrator to suppress that feature in Xstore to ensure that the transaction type is not executed to the point of failure.

Note: Although Oracle are validating the OPI transaction types, Oracle is not responsible for support, this is the responsibility of the Oracle payment partner solution providers. The customer or system integrator should always approach the Oracle payment partner in the first instance who should be able to understand and analyze EFTLink logs in order to determine whether the issue is with their solution or EFTLink. If a problem is found within EFTLink, then the system integrator should go through the standard Oracle support channel in order to facilitate a resolution.

The following Oracle payment partners are validated:

- [ACI Worldwide, Inc.](#)
- [Adyen](#)
- [Aurus](#)
- [Citcon](#)
- [Fiserv](#)
- [Shift4 Payments, LLC](#)
- [Software Express](#)

The table below represents the OPI Retail transaction processing messages which are referenced in the validation table for each Oracle payment partner:

Table 1–1 OPI Retail Transaction Processing Messages

Message Type	Transaction Type	Function Description
Sale/Purchase	01	Sale/Purchase
Refund	03	Refund
Manual Authorization	37	Manual Authorization
Sales Completion	07	Sales Completion
Void	08	Void
	39	Void of Refund
Reversal	04	Reversal
Trans Inq	20	Transaction Inquiry
Balance Inq	27	Balance Inquiry
Settlement	10	End-of-Day/Settlement
Gift/SVC	28	Gift/SVC Reload
	29	Gift/SVC Activate/Issue
	30	Gift/SVC Redeem
	31	Gift/SVC Void
	32	Gift/SVC Cashout (or Close Card)
ItemAdvice	43	Line Item Advice
Sale End	45	Sale End (Clear Terminal Screen)
Read Non-PCI Card	50	Request non-PCI card swipe
Check Authorization	51	Check (Cheque) Authorization
Void Check Authorization	52	Void Check Authorization
Cancel Current Transaction	53	Cancel current transaction
Get Agreement	60	Custom Forms - Get Agreement
Get Signature	61	Custom Forms - Get Signature
Get Numeric Field	62	Custom Forms - Get Numeric Field
Get AlphaNumeric Field	63	Custom Forms - Get AlphaNumeric Field
Get Date Field	64	Custom Forms - Get Date Field
Get Button Selection	65	Custom Forms - Get Button Selection
Get Radio Button Selection	66	Custom Forms - Get Radio Button Selection
Display Message	67	Custom Forms - Display Message
Display QR Code	68	Custom Forms - Display QR Code
Cancel QR Code	69	Custom Forms - Cancel QR Code
Card Acquisition	09	Card Acquisition (Pre-read)

ACI Worldwide, Inc.

Operating Areas: US

Supported Terminals

The following terminals are supported:

Ingenico Telium RBA

- iPP320, iPP350
- iSC250, iSC480
- iSMPc, iSMP4
- iUP250
- iWL250, iWL258

Ingenico Tetra UPP

- Lane5000, Lane7000
- Move5000

Verifone MX 900 Series Form Agent / XPI

- MX915, MX925

The following table provides information relating to the compatibility of Xstore, EFTLink and ACI Worldwide, Inc. for payment terminal functionality in the context of OPI transaction types.

Table 2-1 ACI Worldwide, Inc.

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	ACI's Payment Solution- eSocket.POS - Release Version
Sign On		-	15.0	-	-
Sign Off		-	15.0	-	-
Card Payment	Payment by Credit	01	15.0	17.0	2.8
	Payment by Debit	01	15.0	17.0	2.8
	Manual Authorization	37, 07	-	17.0	2.8
Cashback	Cashback prompted on PED, return amount to POS	01	15.0	-	2.8
Check Payment / Check Verification	Payment by Check	51	17.0	18.0	2.8
Refund	Refund by Credit	03	15.0	17.0	2.8
	Refund by Debit	03	15.0	17.0	2.8
	Cardless Refund using Token	03	16.0	17.0	2.8
Reversal	Reversal of last transaction	04	15.0	17.0	2.8
	Reversal of last transaction within batch	08	15.0	17.0	2.8
DCC (currency conversion)	Foreign exchange tender amount, rate, currency code Functionality that is driven through the Core plugin by virtue of the <DeviceRequest> / <DeviceResponse> API	01, 03, 07, 20	17.0	18.0	2.8
Combined EFT/Tax Receipts	Defer customer copy to <CardServiceResponse>		16.0	17.0	2.8
Customer Display	Sale State Notification	43, 45	15.0	18.0	2.8
Card Swipe - non PCI Cards	Get card data	50	15.0	18.0	2.8
IP PED	Support for ethernet/wireless connected PED device	-	NA	17.0	2.8
Customer Not Present	CVV2 / AVS / partial entry on PED	01	17.0	17.0	2.8
Electronic Signature Capture	3 byte ASCII (3BA)	01	15.0	18.0	2.8

Table 2-1 (Cont.) ACI Worldwide, Inc.

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	ACI's Payment Solution-eSocket.POS - Release Version
Abort	Abort in flight transaction	53	17.0	18.0	2.8
Stored Value Cards (Gift Cards)	Redeem	30	16.0	18.0	2.8
	Redeem Reversal	31	16.0	18.0	2.8
	Cashback /Unload	32	16.0	18.0	2.8
	Load/Reload	28	16.0	18.0	2.8
	Refund	32	16.0	18.0	2.8
	Cash out (Close)	32	16.0.1	18.0	2.8
	Balance Inquiry	27	16.0	18.0	2.8
	Activate	29	16.0	18.0	2.8
	Activate and Load	29	16.0	18.0	2.8
	Activate Reversal	31	16.0	18.0	2.8
Reconciliation	Reconciliation with Closure functionality that is typically available via the hardware maintenance menu on the Xstore POS client, that is, uses the <ServiceRequest> / <ServiceResponse> API	10	15.0	17.0	-
Custom Forms	Terminal Display	67	*	18.0	2.8
	Customer Question	60	*	18.0	2.8
	Phone Number Capture	62	*	18.0	2.8
	Email Address Capture	63	*	18.0	2.8
	Signature Capture	61	*	18.0	2.8
	Customer Buttons	65	*	18.0	2.8
	Display QR Code	68	*	18.0	-
	Cancel QR Code	69	*	18.0	-

* Denotes that the system integrator would have to implement this functionality in the Xstore custom overlay.



Operating Areas: Europe, US, Canada, Brazil, Hong Kong, Singapore, Malaysia, Australia, New Zealand

Supported Terminals

The following terminals are supported:

Verifone

- e285
- M400
- P400Plus
- V240m (Brazil only), V400m, V400cPlus

Castles

- Saturn 1000E

The following table provides information relating to the compatibility of Xstore, EFTLink and Adyen for payment terminal functionality in the context of OPI transaction types.

Note: Where there is no version noted for Xstore it implies that the functionality is driven by EFTLink and the OPI Retail Core. Xstore is not required to implement any additional API feature.

Table 3-1 Adyen

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Adyen VOS Firmware
Sign On		-	15.0	-	-
Sign Off		-	15.0	-	-

Table 3-1 (Cont.) Adyen

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Adyen VOS Firmware
Card Payment	Payment by Credit	01	15.0	17.0	1.XX
	Payment by Debit	01	15.0	17.0	1.XX
	Manual Authorization	37, 07	-	17.0	-
	Installments	01		19.0.1	1.XX
	Partial Authorization	01		17.0	-
	eWallet	01		19.0	1.XX
	Shopper initiated on PED - eWallet button pressed on PED (Flow 1).				
	eWallet Cashier initiated with eWallet tender - QR code displayed on PED (Flow 2).	01		19.0	1.XX
Cashback	Cashback prompted on PED, return amount to POS	01	15.0	-	-
Check Payment / Check Verification	Payment by Check	51	17.0	18.0	-
Refund	Refund by Credit	03	15.0	17.0	1.XX
	Refund by Debit	03	15.0	17.0	1.XX
	Cardless Refund using OriginalRRN	03	16.0	17.0	1.XX
	Cardless Refund using TransToken	03	16.0	19.0.1	1.XX
Reversal	Reversal of last transaction	04	15.0	17.0	1.XX
	Reversal of a transaction within batch ⁺	08	15.0	17.0	1.XX
	Reversal of a refund transaction within a batch ^{**}	39	15.0	17.0	-
DCC (currency conversion)	Foreign exchange tender amount, rate, currency code Functionality that is driven through the Core plugin by virtue of the <DeviceRequest> / <DeviceResponse> API	01, 03, 07, 20	17.0	18.0	1.XX
Customer Display	Sale State Notification	43, 45	15.0	18.0	-

Table 3-1 (Cont.) Adyen

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Adyen VOS Firmware
Card Swipe - non PCI Cards	Get card data	50	15.0	18.0	-
Customer Not Present	CVV2 / AVS / partial entry on PED	01	17.0	17.0	1.XX
Electronic Signature Capture	3 byte ASCII (3BA)	01	15.0	18.0	1.XX
Transaction Inquiry	Time out handling	20	-	17.0	1.XX
Abort	Abort in flight transaction	53	17.0	18.0	1.XX
Stored Value Cards (Gift Cards)	Redeem	30	16.0	18.0	1.XX
	Redeem Reversal	31	16.0	18.0	1.XX
	Cashback /Unload	32	16.0	18.0	1.XX
	Load/Reload	28	16.0	18.0	1.XX
	Refund	32	16.0	18.0	1.XX
	Cash out (Close)	32	16.0.1	18.0	1.XX
	Balance Inquiry	27	16.0	18.0	1.XX
	Activate	29	16.0	18.0	1.XX
	Activate and Load	29	16.0	18.0	1.XX
	Activate Reversal	31	16.0	18.0	1.XX
Reconciliation	Reconciliation with Closure functionality that is typically available via the hardware maintenance menu on the Xstore POS client, that is, uses the <ServiceRequest> / <ServiceResponse> API	10	15.0	17.0	-
Card Acquisition	Card Acquisition (Pre-read)	09	-	19.0.1	1.XX
Custom Forms	Terminal Display	67	*	18.0	-
	Customer Question	60	*	18.0	1.XX
	Phone Number Capture	62	*	18.0	1.XX
	Email Address Capture	63	*	18.0	1.XX
	Signature Capture	61	*	18.0	1.XX
	Customer Buttons	65	*	18.0	1.XX
	Display QR Code	68	*	18.0	1.XX
	Cancel QR Code	69	*	18.0	1.XX

* Denotes that the system integrator would have to implement this functionality in the Xstore custom overlay.

+ Adyen do not currently support receipts for void transactions. This is acceptable as all receipts OPIRetail receive are pre-certified.

** Adyen do not currently support refund reversal transactions due to the nature of their asynchronous platform. Xstore will send the directive to perform a refund reversal. This is a note to warn that this will always fail in the OPI integration with Adyen.

Operating Areas: USA, Canada, UK, Mexico, Austria, Belgium, Czech Republic, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, China*, and Hong Kong*.

* China and Hong Kong are restricted to EWallet tender options.

Supported Terminals

The following terminals are supported:

Verifone

- e265, e265G
- e280, e280s
- e285
- e315, e315M
- e355
- M400, M424, M440
- MX915, MX925, MX915 ECR, MX915 ECR-C
- P400, P400 Plus, P400 DMSR
- UX100, UX400, UX300
- V400m

Ingenico

- Desk1500, Desk3500, Desk5000
- DX8000, EX8000
- iPP350
- iSC250, iSC Touch 250
- iSC480, iSC Touch 480
- iSMP4
- IUC250, IUC285, IUP250, IUR250
- Lane3000, Lane5000, Lane7000, Lane8000
- Link2500, Link2500i
- Move2500, Move3050, Move5000

- Self5000, Self4000, Self2000

The following table provides information relating to the compatibility of Xstore, EFTLink and Aurus for payment terminal functionality in the context of OPI transaction types.

Note: Where there is no version noted for Xstore it implies that the functionality is driven by EFTLink and the OPI Retail Core. Xstore is not required to implement any additional API feature.

Table 4–1 Aurus

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Aurus Shield Software
Sign On		-	15.0	-	-
Sign Off		-	15.0	-	-
Card Payment	Payment by Credit	01	15.0	17.0	v2X.XXX
	Payment by Debit	01	15.0	17.0	v2X.XXX
	Manual Authorization	37, 07	-	17.0	v2X.XXX
	Instalments	01	-	19.0	-
	eWallet	01	-	19.0	v2X.XXX
	Cashier initiated with EWallet tender - Scan QR code displayed on shopper's phone (Flow 3).				
Cashback	Cashback prompted on PED, return amount to POS	01	15.0	-	v2X.XXX
Check Payment / Check Verification	Payment by Check	51	17.0	18.0	v2X.XXX
Refund	Refund by Credit	03	15.0	17.0	v2X.XXX
	Refund by Debit	03	15.0	17.0	v2X.XXX
	Cardless Refund using Token	03	16.0	17.0	v2X.XXX
Reversal	Reversal of last transaction	04	15.0	17.0	v2X.XXX
	Reversal of last transaction within batch	08	15.0	17.0	v2X.XXX
DCC (currency conversion)	Foreign exchange tender amount, rate, currency code Functionality that is driven through the Core plugin by virtue of the <DeviceRequest> / <DeviceResponse> API	01, 03, 07, 20	17.0	18.0	v2X.XXX
Combined EFT/Tax Receipts	Defer customer copy to <CardServiceResponse>		16.0	17.0	-

Table 4–1 (Cont.) Aurus

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Aurus Shield Software
Customer Display	Sale State Notification	43, 45	15.0	18.0	v2X.XXX
Card Swipe - non PCI Cards	Get card data	50	15.0	18.0	v2X.XXX
IP PED	Support for ethernet/wireless connected PED device	-	NA	17.0	v2X.XXX
Customer Not Present	CVV2 / AVS / partial entry on PED	01	17.0	17.0	v2X.XXX
Electronic Signature Capture	3 byte ASCII (3BA)	01	15.0	18.0	v2X.XXX
Abort	Abort in flight transaction	53	17.0	18.0	v2X.XXX
Stored Value Cards (Gift Cards)	Redeem	30	16.0	18.0	v2X.XXX
	Redeem Reversal	31	16.0	18.0	v2X.XXX
	Cashback /Unload	32	16.0	18.0	v2X.XXX
	Load/Reload	28	16.0	18.0	v2X.XXX
	Refund	32	16.0	18.0	v2X.XXX
	Cash out (Close)	32	16.0.1	18.0	v2X.XXX
	Balance Inquiry	27	16.0	18.0	v2X.XXX
	Activate	29	16.0	18.0	v2X.XXX
	Activate and Load	29	16.0	18.0	v2X.XXX
	Activate Reversal	31	16.0	18.0	v2X.XXX
Reconciliation	Reconciliation with Closure functionality that is typically available via the hardware maintenance menu on the Xstore POS client, that is, uses the <ServiceRequest> / <ServiceResponse> API	10	15.0	17.0	-
Custom Forms	Terminal Display	67	*	18.0	v2X.XXX
	Customer Question	60	*	18.0	v2X.XXX
	Phone Number Capture	62	*	18.0	v2X.XXX
	Email Address Capture	63	*	18.0	v2X.XXX
	Signature Capture	61	*	18.0	v2X.XXX
	Customer Buttons	65	*	18.0	v2X.XXX
	Display QR Code	68	*	18.0	-
	Cancel QR Code	69	*	18.0	-

* Denotes that the system integrator would have to implement this functionality in the Xstore custom overlay.

Operating Areas: US, Canada, UK, EU, Australia, New Zealand, Japan, Korea, Mainland China, Hong Kong, Taiwan and Singapore.

Supported Terminals

The following terminals are supported:

- Consumer devices

The following table provides information relating to the compatibility of Xstore, EFTLink and Citcon for EWallet functionality in the context of OPI transaction types.

Note: Where there is no version noted for Xstore it implies that the functionality is driven by EFTLink and the OPI Retail Core. Xstore is not required to implement any additional API feature.

Please also note that where there is no version for Citcon it means that they do not support that OPI feature.

Table 5-1 Citcon

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Citcon Software
Sign On		-	15.0	-	-
Sign Off		-	15.0	-	-
Payment	Payment by Credit	01	15.0	17.0	
	Payment by Debit	01	15.0	17.0	
	Payment by EWallet	01	19.0	19.0	v1.XX
	Cashier initiated with EWallet tender - Scan QR code displayed on shopper's phone (Flow 3)				
	Manual Authorization	37, 07	-	17.0	
	Installments	01		19.0	-

Table 5–1 (Cont.) Citcon

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Citcon Software
Cashback	Cashback prompted on PED, return amount to POS	01	15.0	-	
Check Payment / Check Verification	Payment by Check	51	17.0	18.0	
Refund	Refund by Credit	03	15.0	17.0	
	Refund by Debit	03	15.0	17.0	
	Refund by EWallet ⁺	03	19.0	19.0	v1.XX
	Cardless Refund using OriginalRRN	03	16.0	17.0	
Reversal	Reversal of last transaction	04	15.0	17.0	
	Reversal of last transaction within batch	08	15.0	17.0	
DCC (currency conversion)	Foreign exchange tender amount, rate, currency code Functionality that is driven through the Core plugin by virtue of the <DeviceRequest> / <DeviceResponse> API	01, 03, 07, 20	17.0	18.0	
Combined EFT/Tax Receipts	Defer customer copy to <CardServiceResponse>		16.0	17.0	-
Customer Display	Sale State Notification	43, 45	15.0	18.0	
Card Swipe - non PCI Cards	Get card data	50	15.0	18.0	
IP PED	Support for ethernet/wireless connected PED device	-	NA	17.0	
Customer Not Present	CVV2 / AVS / partial entry on PED	01	17.0	17.0	
Electronic Signature Capture	3 byte ASCII (3BA)	01	15.0	18.0	
Abort	Abort in flight transaction	53	17.0	18.0	

Table 5-1 (Cont.) Citcon

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Citcon Software
Stored Value Cards (Gift Cards)	Redeem	30	16.0	18.0	
	Redeem Reversal	31	16.0	18.0	
	Cashback /Unload	32	16.0	18.0	
	Load/Reload	28	16.0	18.0	
	Refund	32	16.0	18.0	
	Cash out (Close)	32	16.0.1	18.0	
	Balance Inquiry	27	16.0	18.0	
	Activate	29	16.0	18.0	
	Activate and Load	29	16.0	18.0	
	Activate Reversal	31	16.0	18.0	
Reconciliation	Reconciliation with Closure functionality that is typically available via the hardware maintenance menu on the Xstore POS client, that is, uses the <ServiceRequest> / <ServiceResponse> API	10	15.0	17.0	-
Custom Forms	Terminal Display	67	*	18.0	
	Customer Question	60	*	18.0	
	Phone Number Capture	62	*	18.0	
	Email Address Capture	63	*	18.0	
	Signature Capture	61	*	18.0	
	Customer Buttons	65	*	18.0	
	Display QR Code	68	*	18.0	-
	Cancel QR Code	69	*	18.0	-

* Denotes that the system integrator would have to implement this functionality in the Xstore custom overlay.

+ Denotes that for EWallet transactions only a verified refund can be performed at the POS. This is where Xstore will pass back the RRN to Citcon so they can reference the original payment.

Note: Citcon have not implemented the transaction inquiry to support the timeout reversal logic. Citcon are taking control of this scenario within their solution and therefore accept any reconciliation issues which may occur in the event they are not able to reverse a transaction as a result of a communications issue with their host.

Citcon do not support void of a payment or void of a refund transaction. The expectation is that a payment can only be reversed by a refund transaction.

Operating Areas: Hong Kong, Singapore, Malaysia, Macau, India, Philippines, Australia, Japan, Taiwan, and Korea.

Supported Terminals

The following terminals are supported:

Ingenico

- Move5000 FDMS 1.38

PAX

- Android platform terminals series: A920, IM30, A50, (All models running the same Android application)

FDMS Base24 A920 1.00.01_20211214

The following table provides information relating to the compatibility of Xstore, EFTLink and Fiserv for payment terminal functionality in the context of OPI transaction types.

Note: Where there is no version noted for Xstore it implies that the functionality is driven by EFTLink and the OPI Retail Core. Xstore is not required to implement any additional API feature.

Table 6-1 *Fiserv*

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Fiserv OCEAN ONLINE Version
Sign On		-	15.0	-	-
Sign Off		-	15.0	-	-

Table 6–1 (Cont.) Fiserv

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Fiserv OCEAN ONLINE Version
Card Payment	Payment by Credit	01	15.0	17.0	7.X
	Payment by Debit	01	15.0	17.0	7.X
	Manual Authorization	37, 07	-	17.0	-
	Instalments	01	-	19.0	-
	eWallet Shopper initiated on PED - EWallet button pressed on PED (Flow 1).	01	-	19.0	-
Cashback	Cashback prompted on PED, return amount to POS	01	15.0	-	-
Check Payment / Check Verification	Payment by Check	51	17.0	18.0	-
Refund	Refund by Credit	03	15.0	17.0	7.X
	Refund by Debit	03	15.0	17.0	-
	Cardless Refund using Token	03	16.0	17.0	7.X
Reversal	Reversal of last transaction	04	15.0	17.0	7.X
	Reversal of last transaction within batch	08	15.0	17.0	7.X
DCC (currency conversion)	Foreign exchange tender amount, rate, currency code Functionality that is driven through the Core plugin by virtue of the <DeviceRequest> / <DeviceResponse> API	01, 03, 07, 20	17.0	18.0	-
Combined EFT/Tax Receipts	Defer customer copy to <CardServiceResponse>		16.0	17.0	-
Customer Display	Sale State Notification	43, 45	15.0	18.0	-
Card Swipe - non PCI Cards	Get card data	50	15.0	18.0	-
IP PED	Support for ethernet/wireless connected PED device	-	NA	17.0	7.X
Customer Not Present	CVV2 / AVS / partial entry on PED	01	17.0	17.0	-
Electronic Signature Capture	3 byte ASCII (3BA)	01	15.0	18.0	-
Abort	Abort in flight transaction	53	17.0	18.0	-

Table 6–1 (Cont.) Fiserv

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Fiserv OCEAN ONLINE Version
Stored Value Cards (Gift Cards)	Redeem	30	16.0	18.0	-
	Redeem Reversal	31	16.0	18.0	-
	Cashback /Unload	32	16.0	18.0	-
	Load/Reload	28	16.0	18.0	-
	Refund	32	16.0	18.0	-
	Cash out (Close)	32	16.0.1	18.0	-
	Balance Inquiry	27	16.0	18.0	-
	Activate	29	16.0	18.0	-
	Activate and Load	29	16.0	18.0	-
	Activate Reversal	31	16.0	18.0	-
Reconciliation	Reconciliation with Closure functionality that is typically available via the hardware maintenance menu on the Xstore POS client, that is, uses the <ServiceRequest> / <ServiceResponse> API	10	15.0	17.0	-
Custom Forms	Terminal Display	67	*	18.0	-
	Customer Question	60	*	18.0	-
	Phone Number Capture	62	*	18.0	-
	Email Address Capture	63	*	18.0	-
	Signature Capture	61	*	18.0	-
	Customer Buttons	65	*	18.0	-
	Display QR Code	68	*	18.0	-
	Cancel QR Code	69	*	18.0	-

* Denotes that the system integrator would have to implement this functionality in the Xstore custom overlay.

Shift4 Payments, LLC

Operating Areas: United States, Canada

Supported Terminals

The following terminals are supported:

Verifone

- MX915, MX925

Ingenico

- all attended Tetra models
- all attended Telium Models

The following table provides information relating to the compatibility of Xstore, EFTLink and Shift4 Payments, LLC for payment terminal functionality in the context of OPI transaction types.

Note: Where there is no version noted for Xstore it implies that the functionality is driven by EFTLink and the OPI Retail Core. Xstore is not required to implement any additional API feature.

Table 7-1 Shift4 Payments, LLC

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Shift4 Payments LLC
					Universal Transaction Gateway (UTG)
Sign On		-	15.0	-	-
Sign Off		-	15.0	-	-
Card Payment	Payment by Credit	01	15.0	17.0	5.0.0.3024
	Payment by Debit	01	15.0	17.0	5.0.0.3024
	Manual Authorization	37, 07	-	17.0	5.0.0.3024
	Instalments	01		19.0	-
	Partial Authorization	01		17.0	5.0.0.3024

Table 7-1 (Cont.) Shift4 Payments, LLC

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Shift4 Payments LLC Universal Transaction Gateway (UTG)
Cashback	Cashback prompted on PED, return amount to POS	01	15.0	-	-
Transaction Inquiry	Timeout Handling**	20	-	17.0	5.0.0.3024
Check Payment / Check Verification	Payment by Check	51	17.0	18.0	-
Refund	Refund by Credit	03	15.0	17.0	5.0.0.3024
	Refund by Debit	03	15.0	17.0	5.0.0.3024
	Cardless Refund using Token	03	16.0	17.0	5.0.0.3024
Reversal	Reversal of last transaction	04	15.0	17.0	-
	Reversal of transaction within batch	08	15.0	17.0	5.0.0.3024
	Reversal of refund transaction within batch	39	15.0	17.0	5.0.0.3024
DCC (currency conversion)	Foreign exchange tender amount, rate, currency code Functionality that is driven through the Core plugin by virtue of the <DeviceRequest> / <DeviceResponse> API	01, 03, 07, 20	17.0	18.0	-
Customer Display	Sale State Notification	43, 45	15.0	18.0	-
Card Swipe - non PCI Cards	Get card data	50	15.0	18.0	-
Customer Not Present	CVV2 / AVS / partial entry on PED	01	17.0	17.0	5.0.0.3024
Electronic Signature Capture	3 byte ASCII (3BA)	01	15.0	18.0	-
Abort	Abort in flight transaction	53	17.0	18.0	-

Table 7-1 (Cont.) Shift4 Payments, LLC

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Shift4 Payments LLC Universal Transaction Gateway (UTG)
Stored Value Cards (Gift Cards)	Redeem	30	16.0	18.0	-
	Redeem Reversal	31	16.0	18.0	-
	Cashback /Unload	32	16.0	18.0	-
	Load/Reload	28	16.0	18.0	-
	Refund	32	16.0	18.0	-
	Cash out (Close)	32	16.0.1	18.0	-
	Balance Inquiry	27	16.0	18.0	-
	Activate	29	16.0	18.0	-
	Activate and Load	29	16.0	18.0	-
	Activate Reversal	31	16.0	18.0	-
Reconciliation	Reconciliation with Closure functionality that is typically available via the hardware maintenance menu on the Xstore POS client, that is, uses the <ServiceRequest> / <ServiceResponse> API	10	15.0	17.0	-
Custom Forms	Terminal Display	67	*	18.0	-
	Customer Question	60	*	18.0	-
	Phone Number Capture	62	*	18.0	-
	Email Address Capture	63	*	18.0	-
	Signature Capture	61	*	18.0	-
	Customer Buttons	65	*	18.0	-
	Display QR Code	68	*	18.0	-
	Cancel QR Code	69	*	18.0	-

* Denotes that the system integrator would have to implement this functionality in the Xstore custom overlay.

** Time out handling - The UTG time out setting will always be set to a value less than the OPIRetail setting which means OPIRetail will always get a response from the UTG. Therefore in production UTG will return one of the following response codes to OPIRetail:

90 - Cutoff In Progress

91 - Host or Switch Unavailable, Card Issuer Signed Off, Card Issuer Timed Out, Card Issuer Unavailable

92 - Unable to Route Transaction

The standard behavior for UTG would be to expect a transaction inquiry [Type 20] message but OPI Retail will treat these response codes as a decline in line with the OPI Specification. It has been agreed with Oracle Retail and Shift4 Payments LLC that Shift4 Payments LLC will be responsible for voiding the transaction in this scenario. This means the UTG will send a void for the payment. Shift4 Payments LLC provided evidence to support that this void is executed. This was enough to convince Oracle Retail that it would not be possible to see a double charge scenario for those decline reason codes.

Software Express

Operating Areas: Brazil, Mexico, Argentina and Venezuela.

Supported Terminals

The following terminals are supported:

Verifone

- C680
- P200
- VX680, VX690, VX820

Ingenico

- iCMP122
- iPP320, iPP350
- Lane3000
- Link2500

Gertec

- PPC900, PPC910, PPC920, PPC930
- MP5, MP10

PAX

- D175, D180, D195, D200
- S300

Newland

- ME30S

The following table provides information relating to the compatibility of Xstore, EFTLink and Software Express for payment terminal functionality in the context of OPI transaction types.

Note: Where there is no version noted for Xstore it implies that the functionality is driven by EFTLink and the OPI Retail Core. Xstore is not required to implement any additional API feature.

Table 8–1 Software Express

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Software Express Software
Sign On		-	15.0	-	-
Sign Off		-	15.0	-	-
Card Payment	Payment by Credit	01	15.0	17.0	v1.0.0
	Payment by Debit	01	15.0	17.0	v1.0.0
	Manual Authorization	37, 07	-	17.0	-
	Instalments	01	-	19.0	v1.0.0
	eWallet Shopper initiated on PED - EWallet button pressed on PED (Flow 1).	01	-	19.0	-
Cashback	Cashback prompted on PED, return amount to POS	01	15.0	-	-
Check Payment / Check Verification	Payment by Check	51	17.0	18.0	-
Refund	Refund by Credit	03	15.0	17.0	-
	Refund by Debit	03	15.0	17.0	-
	Cardless Refund using Token	03	16.0	17.0	-
Reversal	Reversal of last transaction	04	15.0	17.0	v1.0.0
	Reversal of last transaction within batch	08	15.0	17.0	v1.0.0
DCC (currency conversion)	Foreign exchange tender amount, rate, currency code Functionality that is driven through the Core plugin by virtue of the <DeviceRequest> / <DeviceResponse> API	01, 03, 07, 20	17.0	18.0	-
Combined EFT/Tax Receipts	Defer customer copy to <CardServiceResponse>		16.0	17.0	-
Customer Display	Sale State Notification	43, 45	15.0	18.0	-
Card Swipe - non PCI Cards	Get card data	50	15.0	18.0	-
IP PED	Support for ethernet/wireless connected PED device	-	NA	17.0	v1.0.0
Customer Not Present	CVV2 / AVS / partial entry on PED	01	17.0	17.0	-
Electronic Signature Capture	3 byte ASCII (3BA)	01	15.0	18.0	-

Table 8–1 (Cont.) Software Express

Payment Terminal Function	Subtype	Oracle Payment Interface Retail Transaction Type	Xstore Release Version	EFTLink OPI Retail Core Release Version	Software Express Software
Abort	Abort in flight transaction	53	17.0	18.0	-
Stored Value Cards (Gift Cards)	Redeem	30	16.0	18.0	-
	Redeem Reversal	31	16.0	18.0	-
	Cashback /Unload	32	16.0	18.0	-
	Load/Reload	28	16.0	18.0	-
	Refund	32	16.0	18.0	-
	Cash out (Close)	32	16.0.1	18.0	-
	Balance Inquiry	27	16.0	18.0	-
	Activate	29	16.0	18.0	-
	Activate and Load	29	16.0	18.0	-
	Activate Reversal	31	16.0	18.0	-
Reconciliation	Reconciliation with Closure functionality that is typically available via the hardware maintenance menu on the Xstore POS client, that is, uses the <ServiceRequest> / <ServiceResponse> API	10	15.0	17.0	-
Custom Forms	Terminal Display	67	*	18.0	-
	Customer Question	60	*	18.0	-
	Phone Number Capture	62	*	18.0	-
	Email Address Capture	63	*	18.0	-
	Signature Capture	61	*	18.0	-
	Customer Buttons	65	*	18.0	-
	Display QR Code	68	*	18.0	-
	Cancel QR Code	69	*	18.0	-

* Denotes that the system integrator would have to implement this functionality in the Xstore custom overlay.