

**worldpay**

# **triPOS Release Notes**

Version 7.2.0

Release Date: April 26, 2024

# 7.2.0 API Documentation

Version: 7.2.0

Release Date: April 26, 2024

## Overview

### New Features & Improvements

- Support for new software version UPP 7.83.49 for Ingenico Tetra device family. Please allow up to 30 minutes for updates to complete.
- Support for a configurable timeout period of up to 65 seconds for Store and Forward transactions.
- Linux support for the Ingenico Self 3000.
- Updated the Ingenico USB driver to version 3.36.

### Bug Fixes & Other Changes.

- Updating the Ingenico USB Driver to version 3.36 will resolve the issue present with the Self 3000 canceling sale requests.
- Updating the Ingenico USB Driver to version 3.36 will resolve the issue present with the Lane 3000 where the update process is timing out.
- Updated Knowledge Base articles with documentation supporting the Self 3000 and Self 4000 devices.
- EMV tag 9F34 will contain the correct information based on the appropriate CVM method. If the tag is blank, a null value will be sent.
- Increased timeout period to allow the Ingenico Lane 3600 to successfully reconnect to triPOS after a reboot.
- Revised encryption format to allow for leading zeroes to remain in the BIN range so Tetra devices will not return INVALID CARD INFO error.

### Discontinued Features

- Discontinued support for Windows 8.1 Pro (32 and 64 bit)
- Discontinued support for Windows 8.1 Enterprise (32 and 64 bit)

### Supported Operating Systems

- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

### EMV Certified Devices

#### Worldpay

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 3600, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000, Self 3000, Self 4000

### Fiserv

- EMV Contact/Contactless/Quickchip for Ingenico Lane 3000, Lane 3600, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Chase/Paymentech

- EMV Contact/Contactless/Quickchip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Global Payments

- **NEW!** EMV Contact/Contactless/Quickchip for Ingenico Lane 3000, Lane 3600, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### TSYS

- Standard EMV Contact/Contactless for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000
- **NEW!** EMV Contact/Contactless/Quickchip for Ingenico Lane 3600

### Known Issues

- On Canadian devices, it is required to display the card input result. This can create the scenario where the device displays what appears to be a duplicate screen at times, such as 'Card Read Cancelled' before 'Cancelled' when the transaction has been cancelled by the cardholder.
- After a firmware update, the device may not come back to idle image and would require a reboot. This will only occur once after the firmware update.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit:

<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 7.1.1 API Documentation

Version: 7.1.1

Release Date: January 18, 2024

## Overview

### New Features & Improvements

Added Standard EMV support for the Fiserv processor with the Ingenico Lane 3600. Please see EMV Certified Devices section below.

### Bug Fixes & Other Changes

- No other changes with this version.

### Discontinued Features

- No discontinued features with this version.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

## EMV Certified Devices

### Worldpay

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 3600, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000, Self 4000, Self 3000

### Fiserv

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000
- **NEW!** EMV Contact/Contactless for Ingenico Lane 3600

### Paymentech

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Global Payments

- No EMV Contact/Contactless devices

### TSYS

- Standard EMV Contact/Contactless for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000.

## Known Issues

- During the installation of Direct v7.0.1, the Ingenico Tetra devices will receive a firmware update. After the firmware update and reboot, devices configured to obtain their IP address via DHCP may receive a different IP address which will cause them to lose connectivity with triPOS. In the event triPOS and the device do not reconnect, the new IP address may need to be entered into the device. Devices configured for static IP should not be impacted. It may not affect all DHCP configured devices, and if it occurs, it is only after the firmware update.
- On Canadian devices, it is required to display the card input result. This can create the scenario where the device displays what appears to be a duplicate screen at times, such as 'Card Read Cancelled' before 'Cancelled' when the transaction has been cancelled by the cardholder.

## Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit: <https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 7.1.0 API Documentation

Version: 7.1.0

Release Date: November 17, 2023

## Overview

### New Features & Improvements

- Support for Ingenico Self 3000
- New transaction query API method for triPOS an integrator to fetch transaction details.
- The Store and Forward timeout parameter is now configurable, with the default setting reduced to 30 seconds.
- Support for updated software for the Ingenico Tetra device family for general deployments. The new software is required to allow for new injection method at the Distributor.

### Bug Fixes & Other Changes

- Improved, clearer messaging returned when one or more errors has occurred.
- When there is no value for 'processor' passed in the request, the value set in the configuration file will be used. Also, the default value for 'processor' is 'Vantiv'.
- Corrected idle image issue when replacing the image file within the triPOS resource folder.
- Updated knowledge base article for customizing receipt format for the Move 5000.
- Receipt endpoint now supports authorization transaction type.
- Default value for allowPartialApprovals is set to true.
- Selection endpoint is supported on Ingenico Link 2500 device.

### Discontinued Features

- Surcharge on Debit is no longer supported.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

### EMV Certified Devices

#### Worldpay

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 3600, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000, Self 4000
- **NEW!** EMV Contact/Contactless/QuickChip Ingenico Self 3000

#### Fiserv

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

#### Paymentech

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Global Payments

- No EMV Contact/Contactless devices

### TSYS

- Standard EMV Contact/Contactless for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000. (QuickChip support coming soon.)

### Known Issues

- During the installation of Direct v7.0.1, the Ingenico Tetra devices will receive a firmware update. After the firmware update and reboot, devices configured to obtain their IP address via DHCP may receive a different IP address which will cause them to lose connectivity with triPOS. In the event triPOS and the device do not reconnect, the new IP address may need to be entered into the device. Devices configured for static IP should not be impacted. It may not affect all DHCP configured devices, and if it occurs, it is only after the firmware update.
- On Canadian devices, it is required to display the card input result. This can create the scenario where the device displays what appears to be a duplicate screen at times, such as 'Card Read Cancelled' before 'Cancelled' when the transaction has been cancelled by the cardholder.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit:

<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 7.0.2 API Documentation

Version: 7.0.2

Release Date: August 2, 2023

## Overview

### New Features & Improvements

- No new features with this release.

### Bug Fixes & Other Changes

- Updates to SDK and knowledge base documentation.

### Discontinued Features

- No discontinued features with this release.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

## EMV Certified Devices

### Worldpay

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 3600, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000, Self 4000

### Fiserv

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Paymentech

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Global Payments

- No EMV Contact/Contactless devices

### TSYS

- No EMV Contact/Contactless devices

### Known Issues

- During the installation of Direct v7.0.1, the Ingenico Tetra devices will receive a firmware update. After the firmware update and reboot, devices configured to obtain their IP address via DHCP may receive a different IP address which will cause them to lose connectivity with triPOS. In the event triPOS and the device do not reconnect, the new IP address may need to be entered into the device. Devices configured for static IP should not be impacted. It may not affect all DHCP configured devices, and if it occurs, it is only after the firmware update.
- On Canadian devices, it is required to display the card input result. This can create the scenario where the device displays what appears to be a duplicate screen at times, such as 'Card Read Cancelled' before 'Cancelled' when the transaction has been cancelled by the cardholder.

### **Updates to Release Notes Document**

For updates to this release notes document made after we released the software, please visit:

<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 7.0.0 API Documentation

Version: 7.0.0

Release Date: June 16, 2023

## Overview

### New Features & Improvements

- Supporting new firmware for Ingenico Tetra devices, version UPP 7.83.31.
- Support for Ingenico Lane 3600.
- Support for Ingenico Self 4000.
- Prompt to remove card at beginning of transaction is now an individual step and configurable.
- Prompt for confirming surcharge amount is now configurable.
- Prompt for confirming total amount is now configurable.
- For tip enabled flow, the prompt for tip is now before card input to meet card brand requirements.
- Support for Cashback with Contactless EMV debit transactions.
- All files within the assemblies and services install on the customer system are signed.
- Ended support of PCI 4 devices. Refer to Discontinued Features for list of devices.

### Bug Fixes & Other Changes

- Improved handling of generic exception during disconnection (store and forward).
- For P2PE Validated and Canadian devices remaining on firmware UPP 6.81.08, removed incorrect 'card removed' prompt on contact EMV refund transaction. Pin pad now displays 'Please Remove Card' correctly, and once card has been removed, the pin pad will display 'Processing' followed by 'Approved'.

### Discontinued Features

- As of triPOS Direct v7.0.0, support for PCI 4 certified devices has been discontinued. triPOS Direct v7.0.0 does not support the Ingenico Telium device family (iPP320, iPP350, iSC250, iSC480, iSMP4, iUC285), the Verifone Mx device family (Mx915, Mx925), and the Verifone Ux device family (UX300, UX400, UX100). Performance testing of PCI 4 devices has been discontinued due to manufacturer end of life notifications. Customers can remain on older versions of triPOS Direct to continue to using PCI 4 models or follow recommendations to upgrade to a new device model, such as an Ingenico Tetra device (Lane 3600, Link 2500, Lane 7000, Lane 8000, and Self 4000).

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

### EMV Certified Devices

#### Worldpay

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000
- **NEW** EMV Contact/Contactless/QuickChip for Ingenico Self 4000
- **NEW** EMV Contact/Contactless/QuickChip for Ingenico Lane 3600

### Fiserv

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Paymentech

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Global Payments

- No EMV Contact/Contactless devices

### TSYS

- No EMV Contact/Contactless devices

### Known Issues

- During the installation of Direct v7.0.0, the Ingenico Tetra devices will receive a firmware update. After the firmware update and reboot, devices configured to obtain their IP address via DHCP may receive a different IP address which will cause them to lose connectivity with triPOS. In the event triPOS and the device do not reconnect, the new IP address may need to be entered into the device. Devices configured for static IP should not be impacted. It may not affect all DHCP configured devices, and if it occurs, it is only after the firmware update.
- On Canadian devices, it is required to display the card input result. This can create the scenario where the device displays what appears to be a duplicate screen at times, such as 'Card Read Cancelled' before 'Cancelled' when the transaction has been cancelled by the cardholder.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit:

<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

## 6.2.2 API Documentation

Version: 6.2.2

Release Date: February 10, 2022

### Overview

#### New Features & Improvements

- No new features.

#### Bug Fixes & Other Changes

- Corrected issue with idle message, and isContactlessEMVEntryAllowed and IsDisplayCustomAIDScreen default values set during silent install.
- Corrected issue that caused subsequent transaction to cancel when card was removed prematurely on Ingenico hardware.
- Fixed issue with offline approval and the Verifone Mx915 device being stuck on 'Confirm Amount' screen.
- triPOS Direct files are now signed and will have a digital signature, correcting firewall alerts regarding valid digital signatures.

#### Discontinued Features

- No new deprecated features or functionality in this version.

#### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

#### EMV Certified Devices

##### Worldpay

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

##### Fiserv (formerly First Data)

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

##### Paymentech

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

### Global Payments

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### TSYS

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### Known Issues

- Cashback is not supported for EMV Contactless transactions.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit: <https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 6.2.1 API Documentation

Version: 6.2.1

Release Date: November 18, 2022

## Overview

### New Features & Improvements

- No new features.

### Bug Fixes & Other Changes

- Corrected issue with poorly handled exception message when disconnection occurs after a transaction is stored locally.

### Discontinued Features

- No new deprecated features or functionality in this version.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

### EMV Certified Devices

#### Worldpay

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

#### Fiserv (formerly First Data)

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

#### Paymentech

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Lane 8000, Link 2500, Move 5000

#### Global Payments

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### **TSYS**

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### **Known Issues**

- Cashback is not supported for EMV Contactless transactions.

### **Updates to Release Notes Document**

For updates to this release notes document made after we released the software, please visit:  
<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 6.2.0 API Documentation

Version: 6.2.0

Release Date: November 11, 2022

## Overview

### New Features & Improvements

- PIN pad Idle Image customization for Ingenico Tetra
- Independent version numbering between triPOS Cloud and triPOS Direct for reporting (ie Express Dashboard)
- Enhanced Credit Surcharge support
- Configurable NFC detection time with Ingenico Tetra
- BIN Attributes from BIN lookup are included in the triPOS response
- Integration for Ingenico Lane 8000 (TDES)
- Support for Fallback with Verifone UX Series
- Support for MultiOption Semi-Custom screen for Lane 5000, Lane 7000

### Bug Fixes & Other Changes

- Corrected issue with installation when updating from v5.22. Now a single installation to v6.2.0 from a previous version.
- Corrected default CurrencyCode to CAD for sale transactions on Canadian devices.
- Updated API documentation on `api/v1/authorization` with functioning link.
- Corrected Card Number Required errors with `GetSwipedCardDataAsync` method.
- Corrected international cards failing with Canadian Ingenico Tetra devices.
- Eliminated idle image appearing on screen before the transaction is completed for Ingenico Tetra devices.
- Corrected prompt to remove card in standard EMV flow to occur after signature screen.

### Discontinued Features

- No new deprecated features or functionality in this version.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Windows 11 Pro (64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name is not a supported operating system. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

### EMV Certified Devices

#### Worldpay

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000
- **NEW!** EMV Contact/Contactless/QuickChip for Ingenico Lane 8000

### Fiserv (formerly First Data)

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000
- **NEW!** EMV Contact/Contactless/QuickChip for Ingenico Lane 8000

### Paymentech

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000
- **NEW!** EMV Contact/Contactless/QuickChip for Ingenico Lane 8000

### Global Payments

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- **NEW** EMV Contactless/QuickChip for Verifone Mx915, Mx925

### TSYS

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- **NEW!** EMV Contactless/QuickChip for Verifone Mx915, Mx925

### Known Issues

- Cashback is not supported for EMV Contactless transactions.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit:

<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 6.1.0 API Documentation

Version 6.1.0

Release Date: April 4, 2022

## Overview

### New Features & Improvements

- Enhanced the error message responses in the “developerMessage” field and “exceptionMessage” field to the POS App.
- Completed EMV Contactless/Contact certification with Chase Paymentech on Ingenico TETRA Line
- Completed EMV Contactless/Contact certification with Chase Paymentech on Verifone Mx9xx devices
- Added support for “Configurable Retries” for EMV Contact and EMV Contactless card reads. This can be set in flag cardReadRetries as a number of retries in triPOS.config file.
- Implemented a reduction in the size of the triPOS executable. The reduction in size was accomplished by moving the device firmware files outside of the triPOS executable.
- Enhanced triPOS Direct to be able to programmatically Cancel a transaction at the Pre-Read stage, up to any stage before completing the Sale.  
Added support for Pre-read ID to send in QuickChip transaction endpoint call to match with original Pre-Read. This feature can be set in triPOS.config using “checkForPreReadId” flag by setting to TRUE/FALSE. See swagger documentation for triPOS Direct, look for “checkForPreReadId” at the configuration part of the request body for Sale.
- Updated EULA terms and conditions document at install time.
- Enhanced triPOS Direct to make NFC detection time configurable for Ingenico Tetra devices. This feature can be set using contactlessEventDelayTime to number of “seconds” in triPOS.config file.
- Enhanced standard transaction flow to allow disabling “Confirm Total Amount” prompt. This feature is set by isConfirmTotalAmountScreenDisplayed flag to TRUE/FALSE in triPOS.config file. Default is set to TRUE which preserves current operation behavior.
- Added support for RBA 23.50.16 to support iSMP4 V2 devices.
- Updated Input endpoint KB to reflect new devices.
- Updated Selection endpoint KB article. See link for details: <https://triposcert.worldpay.com/api/help/kb/selection.html>.

### Bug Fixes & Other Changes

- Corrected issue to allow configuration for “countryCode” field.
- Corrected issue of sending signatureRequiredPinpadError status code on response for signature screen when timed out.
- Corrected prompts with incorrect Text displayed prompting for Contactless Tap Card for non financial endpoints (Tokenization) in Verifone devices.

### Discontinued Features

- As of triPOS Direct v5.21, Verifone Vx805 and Verifone Vx690 support has been deprecated. Performance testing of the Verifone Vx805 and Vx690 devices has been discontinued due to manufacturer end of life notifications. Recommend remaining on older version of triPOS Direct to continue to use existing Vx805 and Vx690 devices, or upgrade to a new device model such as Ingenico Lane 3000.
- As of triPOS Direct v6.0.0 the Ingenico iCMP device support has been deprecated.
- As of triPOS Direct v6.0.0 the Windows 7 operating system family has been deprecated.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)

- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

## EMV Certified Devices

### Worldpay

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000

### Fiserv (formerly First Data)

- EMV Contact/Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000.

### Paymentech

- EMV Contact for Verifone Mx915, Mx925
- **NEW!** EMV Contactless/QuickChip for Verifone Mx915, Mx925
- EMV Contact/Contactless/QuickChip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- **NEW!** EMV Contact/Contactless/QuickChip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000

### Global Payments

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### TSYS

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the Swagger Documentation for this information.
- The RBA software running on the iSC250 has the following limitations on the GET /api/v1/selection{laneld} endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see Bluetooth Connectivity for workaround steps to download files to these devices.

- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- Cashback is not supported for EMV Contactless transactions.

### **Updates to Release Notes Document**

For updates to this release notes document made after we released the software, please visit:

<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 6.0.1 API Documentation

Version 6.0.1

Release Date: February 28, 2022

## Overview

### New Features & Improvements

- No New features

### Bug Fixes & Other Changes

- Resolved issue related to Mx9xx devices loading XPI software.
- Resolved issue related to triPOS Direct 6.0.0 installation failing when performing upgrade from older triPOS Direct release.
- For Linux environments only: Resolved issue related to EMV Transactions failing on Lane 3000 devices due to timeouts. Use of the updated Linux communications module file is required.

### Discontinued Features

- As of triPOS Direct v5.21, Verifone Vx805 and Verifone Vx690 support has been deprecated. Performance testing of the Verifone Vx805 and Vx690 devices has been discontinued due to manufacturer end of life notifications. Recommend remaining on older version of triPOS Direct to continue to use existing Vx805 and Vx690 devices, or upgrade to a new device model such as Ingenico Lane 3000.
- As of triPOS Direct v6.0.0 the Ingenico iCMP device support has been deprecated.
- As of triPOS Direct v6.0.0 the Windows 7 operating system family has been deprecated.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developer Integration team.*

### EMV Certified Devices

#### Worldpay

- EMV Contact/Contactless/Quickchip for Verifone Mx915, Mx925
- EMV Contact/Contactless/Quickchip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4, iUC285
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 3000, Lane 5000, Lane 7000, Link 2500 devices.
- EMV Contact/Contactless/QuickChip for Verifone Ux300, Ux400, Ux100.
- EMV Contact/Contactless/QuickChip for Ingenico Move 5000.

#### Fiserv (formerly First Data)

- EMV Contact for Verifone Mx915, Mx925
- EMV Contact for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4
- EMV Contactless/QuickChip for Verifone Mx915, Mx925 devices.

- EMV Contact/Contactless/Quickchip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000 devices.

### Paymentech

- EMV Contact for Verifone Mx915, Mx925
- EMV Contact for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### Global Payments

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.

### TSYS

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4

### Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the Swagger Documentation for this information.
- The RBA software running on the iSC250 has the following limitations on the GET /api/v1/selection{laneld} endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see Bluetooth Connectivity for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- Cashback is not supported for EMV Contactless transactions.
- Ingenico devices sometime is showing the triPOS logo instead of the Idle message/logo set in triPOS.config file.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit: <https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 6.0.0 API Documentation

Version 6.0.0

Release Date: November 12th, 2021

## Overview

### New Features & Improvements

- triPOS Direct now automatically updates to the latest BIN File.
- Updated EMV CAPK certificates to latest versions.
- Added support for portable processing with Ingenico Move 5000 with printer (non-barcode) device.
- Supports WiFi and Bluetooth communications.
- Removed the ability to install/configure Vx devices.
- Added support for unattended processing with Verifone Ux300/Ux100/Ux400.
- Enhanced processing of FSA/HSA to support EMV Contact/Contactless cards.
- Enhanced Mx9xx family to support XPI5400L and OS1400. triPOS will automatically upload Mx devices to new software. Expect to leave device uninterrupted for 15-20 min. till device has completed upload.
- Enhanced Ingenico Lane 3000/Lane 5000/Lane 7000/Link 2500 devices to support Display endpoint.
- Enhanced Ingenico Lane 5000/Lane 7000 devices to support scrolling display.
- Support for PINless Debit for Worldpay acquired merchants.

### Bug Fixes & Other Changes

- Corrected signature status code to reflect correct value for Gift Sale and Gift Refund transactions for iUC285 devices.
- Corrected issue that prevented loading a custom Idle image when Windows FIPS was enabled.
- Corrected issue that was flagging "Empty response on read" error when obtaining a signature on Mx915/Mx925 devices.
- Updated null lane test card used in LaneID 9999 for triPOS Direct and triPOS Cloud testing.
- Enhanced logging for system reversals for Auth, Sale, Refund and Force Credit transactions.
- Corrected issue for forwarding stored transactions to the wrong host.
- Eliminated the flashing of triPOS logo when a technical fallback swipe is performed.

### Discontinued Features

- As of triPOS Direct v5.21, Verifone Vx805 and Verifone Vx690 support has been deprecated. Performance testing of the Verifone Vx805 and Vx690 devices has been discontinued due to manufacturer end of life notifications. Recommend remaining on older version of triPOS Direct to continue to use existing Vx805 and Vx690 devices, or upgrade to a new device model such as Ingenico Lane 3000.
- As of triPOS Direct v6.0.0 the Ingenico iCMP device support has been deprecated.
- As of triPOS Direct v6.0.0 the Windows 7 operating system family has been deprecated.

### Supported Operating Systems

- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developers Integration team.*

## EMV Certified Devices

### Worldpay

- EMV Contact/Contactless/Quickchip for Verifone Mx915, Mx925
- EMV Contact/Contactless/Quickchip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4, iUC285
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 3000, Lane 5000, Lane 7000, Link 2500 devices.
- **NEW!** EMV Contact/Contactless/QuickChip for Verifone Ux300, Ux400, Ux100.
- **NEW!** EMV Contact/Contactless/QuickChip for Ingenico Move 5000.

### Fiserv (formerly First Data)

- EMV Contact for Verifone Mx915, Mx925
- EMV Contact for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.
- **NEW!** EMV Contactless/QuickChip for Verifone Mx915, Mx925 devices.
- **NEW!** EMV Contact/Contactless/Quickchip for Ingenico Lane 3000, Lane 5000, Lane 7000, Link 2500, Move 5000 devices.

### Paymentech

- EMV Contact for Verifone Mx915, Mx925
- EMV Contact for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.

### Global Payments

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.

### TSYS

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the Swagger Documentation for this information.
- The RBA software running on the iSC250 has the following limitations on the GET /api/v1/selection{laneld} endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see Bluetooth Connectivity for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.

- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- Cashback is not supported for EMV Contactless transactions.
- Ingenico devices sometime is showing the triPOS logo instead of the Idle message/logo set in triPOS.config file.

### **Updates to Release Notes Document**

For updates to this release notes document made after we released the software, please visit:

<https://developerengine.fisglobal.com/apis/tripos/tripos-direct>

# 5.22.0 API Documentation

Version 5.22.0

Release Date: June 4th, 2021

## Overview

### New Features & Improvements

- Includes BIN Table dated May 9th, 2021.
- Tetra devices now using 6.81.08 version of UPP.
- Support for Lane 7000 devices on triPOS Direct.
- Support for Pre-Read, Quickchip and EMV Contactless for Lane 7000 devices on Worldpay processor.
- Support for ValuTec Gift card. triPOS supported gift transactions:
- /api/v1/gift/activate, /api/v1/sale, /api/v1/gift/reload, /api/v1/balance, /api/v1/reversal/{transactionId}/gift, /api/v1/return/{transactionId}/gift, /api/v1/refund, /api/v1/gift/unload, /api/v1/gift/balanceTransfer, /api/v1/gift/close.
- Support for ValuTec Loyalty. triPOS supported Loyalty transactions:
- /api/v1/gift/activate, /api/v1/sale, /api/v1/gift/reload, /api/v1/balance, /api/v1/reversal/{transactionId}/gift, /api/v1/return/{transactionId}/gift, /api/v1/refund, /api/v1/gift/balanceTransfer, /api/v1/gift/close
- Support for EMV Quickchip using standard flow, as opposed to using pre-read flow.
- Support for automatically updating the BIN table from Worldpay weekly. This allows for triPOS Direct to automatically update the BIN file without any intervention by ISV/Merchant. – NOTE: Pre-requisite is that triPOS Cloud 2.2.0 and triPOS Cloud 2.3.1 are deployed in ACTUAL as they contain provisions to enable the BIN table microservice.
- Support for Deferred Auth Indicator for Store and Forward transactions.
- Support for P2PE OnGuard SDE encryption Tetra devices. Devices supported Lane 3000, Lane 5000, and Link 2500.
- Enhanced the lane locking time when returnResponseBeforeCardRemoval flag is set.

### Bug Fixes & Other Changes

- Corrected issue that was preventing certain swiped Valutec gift cards.
- Corrected issue where This Lane Closed was flashing on display when performing a Pre-Read swipe transaction.
- Corrected issue where iUC285 was cancelling transaction and freezing the device when performing pre-read transactions.
- Corrected issue where isCardInserted returned incorrect value FALSE, while card is still inserted.
- Corrected issue where "Card Removed Transaction Cancelled" was incorrectly displayed after Remove Card screen.
- Corrected issue where "Please Remove Card" prompt in a Mx device was timing out before 60 seconds standard timeout.
- Enhanced Tip selection prompt to display Original Transaction Amount.
- Corrected issue where TerminalID was missing from request message on /sale/token transaction. We now send TerminalID with request message.
- Corrected issue that Card numbers were being truncated at 14 digits when manually entering on Link 2500 device. Now the device can display up to 16 digits.

### Discontinued Features

- As of triPOS Direct v5.21, Verifone Vx805 and Verifone Vx690 support has been deprecated. Performance testing of the Verifone Vx805 and Vx690 devices has been discontinued due to manufacturer end of life notifications. Recommend remaining on older version of triPOS Direct to continue to use existing Vx805 and Vx690 devices, or upgrade to a new device model such as Ingenico Lane 3000.

## Supported Operating Systems

- Windows 7 Professional (32 and 64 bit)
- Windows 7 Enterprise (32 and 64 bit)
- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developers Integration team.*

## EMV Certified Devices

### Worldpay

- EMV Contact for Ingenico iCMP.
- EMV Contact/Contactless/Quickchip for Verifone Mx915, Mx925
- EMV Contact/Contactless/Quickchip for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4, iUC285
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 3000 device.
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Link 2500 device.
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 5000 device.
- **NEW!** EMV Contact/Contactless/Quickchip for Ingenico Lane 7000 devices.

### Fiserv (formerly First Data)

- EMV Contact for Verifone Mx915, Mx925
- EMV Contact for Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### Paymentech

- EMV Contact for Verifone Mx915, Mx925
- EMV Contact for Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### Global Payments

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### TSYS

- EMV Contact Verifone Mx915, Mx925
- EMV Contact Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the Swagger Documentation for this information.
- The RBA software running on the iSC250 has the following limitations on the GET /api/v1/selection{laneld} endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection.

The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.

- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see Bluetooth Connectivity for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- Cashback is not supported for EMV Contactless transactions.
- Ingenico devices sometime is showing the triPOS logo instead of the Idle message/logo set in triPOS.config file.

### **Updates to Release Notes Document**

For updates to this release notes document made after we released the software, please visit:

<https://developer.vantiv.com/docs/DOC-2643>

# 5.21.0 API Documentation

Version 5.21.0

Release Date: January 11, 2021

## Overview

### New Features & Improvements

- Includes BIN Table dated Jan 4, 2021.
- Integrated the support for the Ingenico Tetra Lane 5000 device, certified for EMV Contact, EMV Contactless and Quickchip on the Worldpay processor. New Tetra devices require to set the driver to `<driver>IngenicoUpp</driver>` in triPOS.config. New Tetra device requires the same Ingenico USB driver used for Telium devices to be installed on the host PC. Telium/Tetra Ingenico USB driver is located at <https://developer.vantiv.com/docs/DOC-2643>
- Support for EMV Contactless and QuickChip for iUC285 with RBA 23.02.46 certified on the Worldpay processor.
- Ability to toggle on and off CVV security code support for triPOS Direct via transaction request for manually keyed transactions.

Sample Sale Request :

```
{  
  
  "laneId": "{{laneId}}",  
  
  "transactionAmount": "1.70",  
  
  "IsCscSupported" : "true",  
  
  "configuration":{ "checkForDuplicateTransactions":"false", "allowPartialApprovals": "false"}  
  
}
```

### Bug Fixes & Other Changes

- Corrected issue where “cashback amount not confirmed” was showing three times on the triPOS transaction response.
- Corrected issue of prompting for Payment selection, even when the requested cashback amount is being sent in the transaction request on Verifone devices. Now we do not prompt for Payment selection.
- Added support for EMV cards to Omnitoken, so it corrected issue for not prompting to “remove card” when using EMV card for Omnitoken transactions.
- Corrected issue where triPOS was defaulting to logo in idle screen when Idle Image was set in the config file on Ingenico devices.
- Corrected issue with creditSaleSignatureThresholdAmount where the threshold amount was not working properly.
- Corrected issue for configuration parameters displaying NULL in configuration endpoints.
- Corrected issue that was prompting for signature on a non-signature capable device Lane 3000.
- Corrected typo in swagger documentation for AutoRental.
- Corrected the http response when device is disconnected/pinpad is not found. We now display the response as http 200 instead of http 500.
- Corrected connectivity issue that was reporting “This lane closed” on iPP320 and Lane 3000 devices.

- Corrected issue where StoreCard gift manually keyed transactions were getting declined with "EncryptedCardData exceeds max length " response for Tetra devices.

### Discontinued Features

- In triPOS Direct v5.21, Verifone Vx805 and Verifone Vx690 support has been deprecated. Performance testing of the Verifone Vx805 and Vx690 devices has been discontinued due to manufacturer end of life notifications. Recommend remaining on older version of triPOS Direct to continue to use existing Vx805 and Vx690 devices, or upgrade to a new device model such as Ingenico Lane 3000.

### Supported Operating Systems

- Windows 7 Professional (32 and 64 bit)
- Windows 7 Enterprise (32 and 64 bit)
- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developers Integration team.*

### EMV Certified Devices

#### Worldpay

- Verifone Vx805\*, Vx690\* (\*refer to Deprecated Features)
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285
- EMV Contactless for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.
- EMV Contactless for Mx9xx devices.
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 3000 device.
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Link 2500 device.
- **NEW** EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 5000 device.

#### First Data

- Verifone Vx805\*, Vx690\* (\*refer to Deprecated Features)
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

#### Paymentech

- Verifone Vx805\*, Vx690\* (\*refer to Deprecated Features)
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

#### Global Payments

- Verifone Vx805\*, Vx690\* (\*refer to Deprecated Features)
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

#### TSYS

- Verifone Mx915, Mx925.
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the Swagger Documentation for this information.
- The RBA software running on the iSC250 has the following limitations on the GET /api/v1/selection{laneld} endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see Bluetooth Connectivity for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- Cashback is not supported for EMV Contactless transactions.
- Ingenico devices sometime is showing the triPOS logo instead of the Idle message/logo set in triPOS.config file.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit: <https://developer.vantiv.com/docs/DOC-2643>

# 5.20.0 API Documentation

Version 5.20.0

Release Date: October 12, 2020

## Overview

### New Features & Improvements

- Includes BIN Table dated October 4, 2020.
- Added new parameter setting "GetToken" in the POS application transaction request so triPOS now can return an OmniToken on a response of a transaction from Express. Transactions impacted are: CreditCardSale, CreditCardAuthorization, CreditCardIncrementalAuthorization, CreditCardReversal and DebitCardReturn.
- triPOS now can create OmniToken/PASS/Paymetric tokens from EMV Contact and EMV Contactless/eWallets.
- Added new variable "AllowedPaymentTypes" in the POS application Sale transaction request so triPOS can control which AiD is displayed for customer selection.
- Added new variable "returnResponseBeforeCardRemoval" in tripos.config file triPOS to send transaction response to POS application, before/while EMV card is prompted to be removed.
- Integrated the support for the Ingenico Tetra Link 2500 device, certified for EMV Contact, EMV Contactless and Quickchip on the Worldpay processor. Link 2500 devices support Bluetooth and WiFi communication modes. Tetra Link 2500 device require to set the driver to <driver>IngenicoUpp</driver> in triPOS.config

### Bug Fixes & Other Changes

- Corrected issue where "Confirm Amount" prompt was being presented before card read prompt when EMV contactless is enabled. "Confirm Amount" prompt now is presented after payment selection prompt.
- Corrected "entryMode" to show "Contactlcc" when EMV transaction times out.
- Corrected issue with error message when invokeManualEntry is set in transaction request. triPOS now returns "Manual entry not supported for this device".
- Corrected USB communications issues for Mx915 devices.
- Corrected issue for iUC285 device displaying "This Lane Closed" after overnight reboot. iUC285 now goes to Idle screen after overnight reboot.
- Corrected issue of triPOS intermittently displaying triPOS logo before displaying Idle screen.

### Discontinued Features

- **NEW** Vx805 XPI 8.42B is no longer a supported device.

### Supported Operating Systems

- Windows 7 Professional (32 and 64 bit)
- Windows 7 Enterprise (32 and 64 bit)
- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developers Integration team.*

## EMV Certified Devices

### Worldpay

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285
- EMV Contactless for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.
- EMV Contactless for Mx9xx devices.
- EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 3000 device.
- **NEW** EMV Contact/Contactless/Quickchip for Ingenico Tetra Link 2500 device.

### First Data

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### Paymentech

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### Global Payments

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### TSYS

- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the Swagger Documentation for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the GET `/api/v1/selection{laneld}` endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see Bluetooth Connectivity for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.

- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- "Vx805 devices with XPI 8.42b would not be able to support any contactless transactions. Please refer to <https://developer.vantiv.com/docs/DOC-4459>. This workaround has some limitations, it would work well for installations with ONLY Vx805 XPI 8.42b in this triPOS instance. If you require to combine Vx805 XPI 8.42 with MSD Contactless and Ingenico devices with EMV Contactless in the same triPOS instance, this would be an invalid configuration.
- Cashback is not supported for EMV Contactless transactions.
- Ingenico devices sometime is showing the triPOS logo instead of the Idle message/logo set in triPOS.config file.
- StoreCard gift manually keyed transactions are getting declined with "EncryptedCardData exceeds max length " response for Tetra device.

### **Updates to Release Notes Document**

For updates to this release notes document made after we released the software, please visit:

<https://developer.vantiv.com/docs/DOC-2643>

# 5.19.0 API Documentation

Version 5.19.0

Release Date: August 14, 2020

## Overview

### Supported Operating Systems

- Windows 7 Professional (32 and 64 bit)
- Windows 7 Enterprise (32 and 64 bit)
- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developers Integration team.*

### New Features & Improvements

- Includes BIN Table dated August 3, 2020.
- For credit only endpoints as (Credit, Authorization, Force and Payment Account create, Payment Account Update) when presented with a dual AiD card, triPOS would not present the Credit VS Debit prompt, and will automatically select the Credit AiD. This same behavior also applies when using these credit only endpoints in Store And Forward mode.
- If isDebitSupported parameter is set to FALSE in triPOS.config, and a Debit only card is presented, triPOS cancels the transaction, however now it will also display "Debit is Not Supported" on the pin pad.
- Integrated the support for the Ingenico Tetra Lane 3000 device, certified for EMV Contact, EMV Contactless and Quickchip on the Worldpay processor. New Tetra devices require to set the driver to <driver>IngenicoUpp</driver> in triPOS.config. New Tetra device requires the same Ingenico USB driver used for Telium devices to be installed on the host PC. Telium/Tetra Ingenico USB driver is located at <https://developer.vantiv.com/docs/DOC-2643>

### Bug Fixes & Other Changes

- Corrected issue where the card read prompt was not showing contactless symbol when triPOS.config has Storecard credentials enabled.
- Corrected issue to have triPOS validate credentials for all transaction requests. triPOS now returns "401 Unauthorized" with the error and with the exception message.
- Corrected issue that was causing the pin pad device to lock up for 2-5 minutes after a timeout occurred at the PIN entry prompt. Now triPOS displays transaction cancelled on display and returns a "statusCode": "Cancelled" in the transaction response and "VerifoneXPI Z62. response is cancelled. Cancelled by cardholder\r\n" in the processor logs the Mx device to the Idle screen after a PIN entry prompt times out.
- Corrected issue where triPOS was processing an automatic reversal for a partial approval with an incorrect value for the amount.

### Discontinued Features

- None

## EMV Certified Devices

### Worldpay

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285
- EMV Contactless for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.
- EMV Contactless for Mx9xx devices.
- **NEW** EMV Contact/Contactless/Quickchip for Ingenico Tetra Lane 3000 device.

### First Data

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

### Paymentech

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

### Global Payments

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

### TSYS

- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** `/api/v1/selection{laneld}` endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.

- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- "Vx805 devices with XPI 8.42b would not be able to support any contactless transactions. Please refer to <https://developer.vantiv.com/docs/DOC-4459>. This workaround has some limitations, it would work well for installations with ONLY Vx805 XPI 8.42b in this triPOS instance. If you require to combine Vx805 XPI 8.42 with MSD Contactless and Ingenico devices with EMV Contactless in the same triPOS instance, this would be an invalid configuration.
- Cashback is not supported for EMV Contactless transactions.
- Ingenico devices sometime is showing the triPOS logo instead of the Idle message/logo set in triPOS.config file.

### Updates to Release Notes Document

For updates to this release notes document made after we released the software, please visit: <https://developer.vantiv.com/docs/DOC-2643>

# 5.18.0 API Documentation

Version 5.18.0

Release Date: June 15, 2020

## Overview

### Supported Operating Systems

- Windows 7 Professional (32 and 64 bit)
- Windows 7 Enterprise (32 and 64 bit)
- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (64 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developers Integration team.*

### New Features & Improvements

- Support for EMV Contactless and pre-read/Quick Chip transactions on Verifone Mx9xx family devices.  
To enable/disable EMV Contactless, you set "isContactlessEmvEntryAllowed" and isEmvSupported flags to true.  
<isContactlessEmvEntryAllowed>true </isContactlessEmvEntryAllowed> will be true by default.  
<isEmvSupported>true </isEmvSupported> will be true by default.
- Support for pre-read/QuickChip for swipe, contact and contactless transactions on Verifone Mx9xx family devices.

To enable/disable QuickChip you set the flag "quickChip" <quickChip>>false</quickChip> is set to false by default.

To configure the life (in seconds) of the pre-read data, you set it in the quickChipDataLifetime flag. <quickChipDataLifetime>30</quickChipDataLifetime> is set to 30 seconds by default.

When "quickChip" flag is set to true, the following must be done to successfully request preRead/QuickChip for a given transaction (Ex:/ sale). It entails a two (2) step request. 1st, the preRead request, followed immediately (before the life of the pre-read data expires) by the finalization (quickChip) request.

#### 1. 1<sup>st</sup> request (Pre-Read).

```
{
  "laneId": "3",
  "preRead": true,
  "configuration": {
    "provisionalAmount": 30.00,
  }
}
```

Footnotes:

- "preRead": true; this is a required field and must be set to true for pre-read.
- "provisionalAmount"; this is an optional field, is used to trigger CVM behavior (PIN/Signature, etc...) when above CVM limit for various card brands (Limits are in config file defined at startup). If this field is not specified, it defaults to \$1.00.

```

    2. 2nd request (QuickChip).
    {
      "laneId": "3",
      "quickChip": true,
      "transactionAmount": 7.31,
      "configuration": {
        "checkForDuplicateTransactions": "false",
      }
    }
  }

```

**Notice, the final transaction amount is specified in the 2nd step (QuickChip) and not in the 1st step (preRead).**

- **VX 805/VX690 devices** do not support Preread/Quickchip/EMV Contactless features.
- Updated Verifone Mx9xx devices to XPI 5400d. The XPI 5400d upgrade is to support EMV Contactless on Verifone Mx9xx devices(takes up to 20 mins).
- Updated to latest BIN table dated June/01/2020.
- triPOS 5.18 Release automatically updates Verifone MX9xx devices to XPI 5400d.
- Once MX9xx devices are upgraded to 5400d they are not backward compatible with 5.17 and older releases
- triPOS 5.18 Release automatically updates Display/Prompt forms on Ingenico devices iPP320, iPP350, iSC250, iSC480, iSMP4 (minor cosmetic changes).
- Enhanced Auth transaction to support returning Gift Card data to the POS application to be processed at another system for Unattended iUC285.
- Enhanced Store and Forward to support Preread/Quickchip on Ingenico and Verifone devices.

## Bug Fixes & Other Changes

- Corrected issue for iUC285 Unattended that was locking up device when contactless card/wallet was presented to the iUC285 and the nonFinancialExpected flag was set.
- Corrected issue with Tip processing for percent tip options.
- Corrected issue of missing GUID in verbose logs.
- Corrected issue where pinpad was freezing after EMV Refund transaction and card was removed on Signature Capture prompt.
- Corrected issue for Receipt Printing endpoint to correct the laneId value set in the triPOS transaction response.
- Corrected issue to show the correct Signature StatusCode for Vx805 Devices
- Corrected error received when MSD and EMV Contactless are set to false in triPOS.config file
- Duplicate json/xml links are removed from metadata page
- Corrected error on VX805 XPI 12.x where signature status code was being displayed as **Unknown** instead of **SignatureRequiredNotSupportedByPinPad**
- Corrected error with requested Cashback option not working in Preread/QC sale
- Corrected error where PIN pad does not return to Idle after Timeout on signature screen

## Discontinued Features

- None

## EMV Certified Devices

### Worldpay

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285
- EMV Contactless for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.
- **NEW** EMV Contactless for Mx9xx devices.

## First Data

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Paymentech

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Global Payments

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## TSYS

- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** `/api/v1/selection{laneld}` endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.

**“Vx805 devices with XPI 8.42b would not be able to support any contactless transactions. Please refer to <https://developer.vantiv.com/docs/DOC-4459>. This workaround has some limitations, it would work well for installations with ONLY Vx805 XPI 8.42b in this triPOS instance. If you require to combine Vx805 XPI 8.42 with MSD Contactless and Ingenico devices with EMV Contactless in the same triPOS instance, this would be an invalid configuration.**

# 5.17.0 API Documentation

Version 5.17.0

Release Date: March 23, 2020

## Overview

### Supported Operating Systems

- Windows 7 Professional (32 and 64 bit)
- Windows 7 Enterprise (32 and 64 bit)
- Windows 8.1 Pro (32 and 64 bit)
- Windows 8.1 Enterprise (32 and 64 bit)
- Windows 10 Pro (32 and 64 bit)
- Windows 10 Enterprise (32 and 64 bit)
- Linux CentOS Rel 7 (32 bit)

*NOTE: Any variation of the operating system edition name i.e. Windows 10 Pro Education or Windows 10 IoT Core, are not supported operating systems. If you have any questions regarding a supported operating system, please contact Developers Integration team.*

### New Features & Improvements

- Support for EMV Contactless and Quick Chip transactions on Ingenico Telium family devices iSC250, iSC480, iPP320, iPP350 and iSMP4.  
To enable/disable EMV Contactless, you set "isContactlessEmvEntryAllowed" and isEmvSupported flags to true.  
<isContactlessEmvEntryAllowed>true </isContactlessEmvEntryAllowed> will be true by default.  
<isEmvSupported>true </isEmvSupported> will be true by default.
- Support for pre-read for swipe, contact and contactless transactions on Ingenico Telium family devices iSC250, iSC480, iPP320, iPP350 and iSMP4. Support for QuickChip (contact) transactions on Ingenico Telium family devices.

To enable/disable QuickChip you set the flag "quickChip" <quickChip>>false</quickChip> is set to false by default.

To configure the life (in seconds) of the pre-read data, you set it in the quickChipDataLifetime flag.

<quickChipDataLifetime>30</quickChipDataLifetime> is set to 30 seconds by default.

When "quickChip" flag is set to true, the following must be done to successfully request preRead/QuickChip for a given transaction (Ex:/ sale). It entails a two (2) step request. 1st, the preRead request, followed immediately (before the life of the pre-read data expires) by the finalization (quickChip) request.

```
3. 1st request (Pre-Read).
{
  "laneId": "3",
  "preRead": true,
  "configuration": {
    "provisionalAmount": 30.00,
  }
}
```

Footnotes:

iii. "preRead": true; this is a required field and must be set to true for pre-read.

iv. "provisionalAmount"; this is an optional field, is used to trigger CVM behavior (PIN/Signature, etc...) when above CVM limit for various card brands (Limits are in config file defined at startup). If this field is not specified, it defaults to \$1.00.

```
4. 2nd request (QuickChip).
{
  "laneId": "3",
  "quickChip": true,
  "transactionAmount": 7.31,
  "configuration": {
    "checkForDuplicateTransactions": "false",
  }
}
```

**Notice, the final transaction amount is specified in the 2nd step (QuickChip) and not in the 1st step (preRead).**

- Update Ingenico devices to RBA 23.0.44 for iSC250, iSC480, iPP320, iPP350 and iSMP4, with the exception of iUC285 device. The RBA 23.0.44 upgrade is to support EMV Contactless on Ingenico devices and the new iSMP4 hardware.
- Enhance display to notify cardholder for a successful Gift Card read, displaying “Processing” instead of “Approved”.
- Updated signature status code values returned to “Unknown” for declined transaction and to “SignatureNotRequiredByUnattendedPINpad” for the Unattended iUC285 device.
- Enhanced documentation related to Visa recurring payments.
- Updated to latest BIN table dated Mar/9/2020.
- Updated triPOS to load Ingenico devices to RBA 23.0.44.

## Bug Fixes & Other Changes

- Corrected issue that was allowing PIN bypass on Debit transactions.
- Corrected empty currency code field in triPOS.config file.
- Corrected issue that was allowing Fallback on Unattended merchants. No fallback would be allowed in Unattended.
- Updated Tip Selection documentation to show the None/Other examples.
- Corrected issue with contactless reads on iUC285 unattended devices.
- Corrected issue in XML for namespace error.
- Corrected issue for expired CAPK notification on Vx805 XPI 8.42b devices.
- Corrected issue where “approvedAmount” displayed on device and in triPOS response to POS application was incorrectly calculated.

## Discontinued Features

- None

## EMV Certified Devices

### Worldpay

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285
- **NEW** EMV Contactless for Ingenico iSC250, iSC480, iPP320, iPP350, iSMP4.

### First Data

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

## Paymentech

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Global Payments

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

## TSYS

- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** `/api/v1/selection{laneId}` endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices
- Back-to-back pre-reads are an invalid sequence.
- "Vx805 devices with XPI 8.42b would not be able to support any contactless transactions. Please reach out to DI team to provide a workaround configuration for Rel 5.17 that will allow to support MSD Contactless on Vx805 XPI 8.42b equivalent to the Rel 5.16.1 supported MSD contactless. This workaround has some limitations, it would work well for installations with ONLY Vx805 XPI 8.42b in this triPOS instance. If you require to combine Vx805 XPI 8.42 with MSD Contactless and Ingenico devices with EMV Contactless in the same triPOS instance, this would be an invalid configuration.

# 5.16.1 API Documentation

Version 5.16.1

Release Date: January 13, 2020

## Overview

### New Features & Improvements

- Updated triPOS to “.Net” Framework 4.7.2.
- UserInputTimeout is now configurable using request parameter "UserInputTimeout" for iUC285(Unattended) from minimum 10 seconds to maximum 1 hr on Sale, Authorization and Refund endpoint.
- triPOS now supports Installation in Custom Directory.
- EMV Support for for TSYS and Ingenico Telium PIN pads.
- triPOS will now allow \$0 tip in tipSelection.
- Updated documentation for Store and Forward.
- Optimized performance

### Bug Fixes & Other Changes

- Fixed issues with barcode scanner for iSMP4. Previously, Barcode scanner always remained active, possibly leading to battery drain.
- Fixed issues with iUC285 transaction response not being sent to POS application before removing EMV card after fallback.
- Invalid values are gracefully handled in request, by sending response as "Invalid Input".
- Removed delay during remove/reinsert card for Sale endpoint for iSC250.
- XSD links are now functional on the metadata page.
- Fixed issue Apple pay/Physical Visa and MasterCard contactless cards for both Visa and MasterCard.
- Timeout on Pin Entry screen increased from 15 seconds to 60 seconds on MX915.
- Enabled Cancel button on Signature endpoint for all Ingenico devices.
- Enabled Enter button on Yes/No screens for all Ingenico devices.
- Enhanced display message on Pin pad for Store and forward Transactions.
- Fixed issues for VX805 while updating lane configuration via API. Previously, it used to make device unresponsive.
- On the creation of Omni/Paymetric, Pinpad will now display "Token Created" message.
- "aimerLightsOn" and "scanLightsOn" fields for ISMP4 now get set through request.
- IPP320/Ipp350 now display a meaningful message for not supporting Yes/no selection for Selection endpoint.
- PIN Pad now prompts to enter tip amount when "Other" is given as option in tipselection.
- triPOS will now support "HotelLodging" as Marketcode for Lodging Sale, Authorization and Authorization completion.
- Updating application configuration with empty Idle message on PINPad is now allowed.

### Discontinued Features

- None

### EMV Certified Devices

#### Worldpay

- Verifone Vx805, Vx690

- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285.

### First Data

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### Paymentech

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### Global Payments

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

### TSYS

- Verifone Mx915, Mx925
- **NEW!** Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

### Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** [/api/v1/selection{lanelid}](#) endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices

# 5.16.0 API Documentation

Version 5.16.0

Release Date:

## Overview

### New Features & Improvements

- Configurable CREDIT/DEBIT Prompts for Multi-AID EMV cards. This function can be enabled/disabled by the `isDisplayCustomAidScreen` parameter in `triPOS.config`. On a new triPOS rel 5.16 install, `isDisplayCustomAidScreen` defaults to TRUE in serial, IP and NULL Pinpad sample lanes. For upgrade installs, copy `isDisplayCustomAidScreen` parameter to each existing lane in `triPOS.config` and set to desired state.
- Transaction flow progress indicator, `GET /api/v1/status/lane/{laneId}` has new values returned: `PromptingForCardInput`, `PromptingToConfirmAmount`, `PromptingToConfirmCashBack`, `PromptingForCashBackAmount`, `PromptingToConfirmTipAmount`, `PromptingForPinEntry`, `PromptingFinishPreProcessing`, `PromptingProcessing`, `PromptingToRemoveCard` that indicate what is being prompted on the Pinpad.
- Support Visa Terminal Transaction Qualifiers (TTQ) for NFC read transactions (Contactless Cards, Apple Pay and Google Pay).
- EBT Enhancements: - Populate `BalanceAmount` field when Express includes it in transaction response, -Add ability to define EBT Type in triPOS Sale request, -Add additional amount for Food Stamp benefit for EBT Sale transaction.
- Enhanced Input Endpoint to support new `promptType = idnumber` to allow any numeric customer entry on Mx9xx and Ingenico devices. Use `GET /api/v1/input` endpoint. Please see the [Input Endpoint](#) documentation for a list of prompts and formats currently supported for each device.
- Updated triPOS Direct BIN file with latest Vantiv/Worldpay BIN file.
- Tip Prompt now allows displaying Other and None on the same screen.
- Enabled Credential on File functionality for Sale and Authorization transactions (initial transaction) in support of payment brand requirements.
- Option to Display Amount during a Card Read on Ingenico devices, can be configured by `displayTransactionAmount=True` in the transaction request object.
- Configurable display prompt timeout on iUC285 (Unattended), can be configured by `userInputTimeout` parameter in `triPOS.Config`.
- Change to now send transaction response to POS App without waiting for cardholder to remove the EMV card on iUC285 for Unattended. In the past, we waited for card removal first, and then sent transaction response to POS App.
- Updated triPOS application names to be "triPOS Cloud" and "triPOS Direct" to differentiate from which application is the transaction on Express Dashboard.

### Bug Fixes & Other Changes

- Corrected problem for No options for "Select Card Type" Mx USB device with Apple Pay and Google Pay.
- Corrected EBT transaction routing issue for swiped/keyed Refunds and keyed Sales.
- Reduced number of EMV tags returned on transaction response to POS App after EMV approval.
- Resolved issue of Ingenico TCP/IP devices set to Static IP reverting back to DHCP during upgrade process.
- Corrected issue where MasterCard PIN Bypass transactions were processing as Debit instead of Credit.
- Corrected Contactless tap dynamic CVV issue for Apple Pay and Google Pay.
- Removed unnecessary logging data in certain reversal scenarios.

- Corrected triPOS Gift Reload Response Class section of the **POST /api/v1/gift/reload** endpoint documentation misspelling, changed "ActivateGiftResponse" to "ReloadGiftResponse" (under Response Class).
- Corrected misspelling in response value for "\_type" in documentation, changed "relaadGiftResponse" to "reloadGiftResponse"

### Discontinued Features

- None

### EMV Certified Devices

#### Worldpay

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285.

#### First Data

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

#### Paymentech

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### NEW! Global Payments

- Verifone Vx805, Vx690
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4.

### NEW! TSYS

- Verifone Mx915, Mx925.

### Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET /api/v1/selection{laneld}** endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.

- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- MasterCard contactless MSD for NFC Card and ApplePay issues on Mx devices

# 5.15.0 API Documentation

Version 5.15.0

Release Date:

## Overview

### New Features & Improvements

- Added support to process transactions using an EBT card (Food Stamp \ Cash Benefits). Please see [EBT transactions](#) for more details.
- Added capability to configure the 24 hour reboot time for PIN pads. See [PIN pad reboot](#) for more info.
- New **POST /api/v1/reboot** endpoint. Use this endpoint to reboot a specified PIN pad. See [reboot documentation](#) for more information.
- Masked EasyPay code input for customer privacy.
- Upgraded RBA versions for all Ingenico PIN pad models except iUC285 to 23.0.12.

### Bug Fixes & Other Changes

- Swiping non-standard cards, such as customer loyalty cards, no longer result in a null reference exception being returned.
- Fixed an issue with \$0 Auth request in Store and Forward mode.
- "Lane Closed" is now displayed on a PIN pad when it is replaced by another PIN pad on the same lane.
- Ingenico PIN pads now display "Enter tip amount" instead of "Please enter new amount:" when prompting for tip entry.
- Errors generated during one request no longer appear in the responses of other requests.
- Firmware upgrades of Verifone Form Agent devices from the key injection facility (KIF) now complete successfully and no longer return a "VerifoneFA XDTX response len=0" exception.
- "VerifoneFA failed to reboot" exception now longer occurs when upgrading a Verifone Form Agent PIN pad.
- Ingenico iSC250s no longer sporadically "freeze" after the transaction is approved and prior to the signature prompt.
- Ingenico iCM122, iPP320, iPP350, iSC250, iSC350, iSC480, and iSMP4 PIN pads now honor the canadaVisaDebitAllowed EMV config setting by accepting Canadian Visa debit cards when it is set to true.

### Discontinued Features

- None

### EMV Certified Devices

#### Vantiv

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

#### First Data

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Paymentech

- Verifone Vx805, Vx690(CXPI)
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Supported Devices

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

## EMV Devices

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

## IP Devices

- Verifone Mx915, Mx925
- Ingenico iSC250, iPP320, iPP350

## Bluetooth Devices

- Ingenico iCMP, iSMP4

## WiFi Devices

- Verifone Vx690(CXPI)
- Ingenico iSMP4

## Linux Supported Devices

- Verifone Mx915, Mx925
- Ingenico iSC250

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** [/api/v1/selection{lanelid}](#) endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.

- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- CXPI Vx690 devices may intermittently cancel a transaction. We are actively working with Verifone to identify the issue. Subsequent requests should behave as normal.
- Payment Account creation using Manual entry fails for CXPI Vx690 devices.
- iUC285 prompts for Card read after timeout. Intermittent issue.
- iUC285 displays This Lane Closed/idle message twice.

## 5.14.2 API documentation

Version 5.14.2

Release Date: April 10, 2018

### Bug Fixes & Other Changes

- Corrected issue where negotiation to TLS 1.2 was not properly enforced.

# 5.14.1 API Documentation

Version 5.14.1

Release Date: March 23, 2018

## Overview

### New Features & Improvements

- Updated the Linux Mono installation script (mono\_install.sh) to install the latest version of Mono (needed for TLS 1.2 support).
- iUC285 devices support cancelling card input using the **STOP** button.
- Updated triPOS installer to support TLS 1.2 in .NET framework.
- Enhanced AutoRental transactions Sale, Auth Completion, Force, and OmniToken Sale to support **AutoRentalDailyRentalRate**, **AutoRentalWeeklyRentalRate**, **AutoRentalInsuranceCharges** data fields.
- Updated triPOS BIN file with latest Vantiv BIN file.
- Added support for non-barcode iSMP4 device.
- Supports EMV recertification on First Data for Ingenico RBA 21.0.2 with EMV L2 Kernel rel 5.26.

### Bug Fixes & Other Changes

- Ingenico devices no longer become unresponsive if an EMV card is removed after the device has stopped beeping.
- Removing an EMV card from Ingenico iUC285 devices the moment the screen turns green no longer causes triPOS to wait for card input for one minute.
- Fixed a mapping exception on the **GET /card/financial/{laneId}** endpoint for devices running CXPI.
- **Initializing** and **ShuttingDown** have been restored as possible values returned by the **/api/v1/status/lane/{laneId}** endpoint.
- When an overnight reboot of an iUC285 occurs, triPOS now returns it to the idle screen instead of the "This Lane Closed" screen.
- If a reboot of an Mx9xx device is required during a firmware upgrade, triPOS now picks up where it left off without needing to be restarted.
- Fixed an issue in **GET /api/v1/signature/{laneId}?form=contract** where the PIN pad would display the signature screen for a split-second and then go to idle or reboot.

### Discontinued Features

- None

### EMV Certified Devices

#### Vantiv

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

#### First Data

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Paymentech

- Verifone Vx805, Vx690(CXPI)
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Supported Devices

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

## EMV Devices

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

## IP Devices

- Verifone Mx915, Mx925
- Ingenico iSC250, iPP320, iPP350

## Bluetooth Devices

- Ingenico iCMP, iSMP4

## WiFi Devices

- Verifone Vx690(CXPI)
- Ingenico iSMP4

## Linux Supported Devices

- Verifone Mx915, Mx925
- Ingenico iSC250

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** `/api/v1/selection{lanelid}` endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.

- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- CXPI Vx690 devices may intermittently cancel a transaction. We are actively working with Verifone to identify the issue. Subsequent requests should behave as normal.
- Payment Account creation using Manual entry fails for CXPI Vx690 devices.

# 5.14.0 API Documentation

Version 5.14.0

Release Date: 11/20/2017

## Overview

### New Features & Improvements

- Added "smart initialization", which means devices may now be disconnected/connected, added/removed, and have their lanes changed without having to restart triPOS. Also, Idle messages may now be updated while triPOS is running. However, if it is done while triPOS is in the middle of obtaining card data, it will cause the card operation to fail.
- Added important documentation regarding [unattended](#) devices and configuration for the [iUC285](#).
- Added support for the Vx690 CXPI OS 0500.
- Removed card brand logos from the [GET /api/v1/card/nonFinancial/](#) endpoint for CXPI Vx690 devices.
- triPOS now supports the Scrolling Display feature ([POST /api/v1/scrollingDisplay](#) endpoint). See [Scrolling Display documentation](#) for more info.
- Added support for the Ingenico RBA version 21.02. This update process takes a **full 10-15 minutes** to complete. Check the logs for information on the upgrade process and whether or not the initialization process is successful.
- Added a **Updating, Please Wait** message when Ingenico devices are downloading newer RBA versions. Please note, the device will download additional forms but this message will display only for the RBA file which takes the longest.
- Added ability to pass in [requestedCashbackAmount](#) in the request for Sale transactions. Note, this functionality requires that [isCashbackAllowed](#) is enabled in the triPOS.config.
- Verifone Mx9xx devices are now able to accept PIN entry up to 12 digits.
- Added [isGiftSupported](#) to the configuration request section for API requests.
- Added [isManualEntryAllowed](#) to the configuration request section for API requests on the Sale, Authorization, and Refund endpoints only.
- Added [confirmOriginalAmount](#) to the configuration request section for API requests.
- Added [invokeManualEntry](#), outside of the configuration request section, which allows the ability to skip the swipe screen and go directly to manual entry for card read endpoints.
- Added [displayTransactionAmount](#), outside of the configuration request section, which will display the transaction amount on the swipe screen for Verifone Mx9xx devices **only**.
- Added support for the Ingenico iSMP4 device with Bluetooth and WiFi connectivity.

### Bug Fixes & Other Changes

- The [/api/v1/status/lane/{laneId}](#) endpoint has been repaired.
- Fixed a bug where Verifone Mx9xx devices would enter a state of repeated initialization when updating the device's Form Agent, XPI and OS version. Devices containing Form Agent versions of 3.0.4 or 4.3.5 will no longer trigger this initialization issue. Please note, once the device's OS has been updated you may need to restart triPOS to continue the upgrade process.
- Fixed an issue when pressing cancel on a PIN pad while on the Payment Type selection screen where the transaction continues on for processing.
- Fixed an issue with the iUC285 when removing an EMV card on the Authorization screen caused the device to require a reboot.
- Fixed a CXPI issue where manual entry was not working.
- Fixed an issue where expiration months of 03 were not accepted on manual entry.
- Fixed an issue where Mx9xx devices would not return to idle after a timeout.
- Fixed an issue where Tip Options and/or Cashback Options would not display when [confirmOriginalAmount](#) was set to false.

## Discontinued Features

- None

## EMV Certified Devices

### Vantiv

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

### First Data

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

### Paymentech NEW!

- Verifone Vx805, Vx690(CXPI)
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4

## Supported Devices

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

## EMV Devices

- Verifone Vx805, Vx690(CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iSMP4, iUC285

## IP Devices

- Verifone Mx915, Mx925
- Ingenico iSC250, iPP320, iPP350

## Bluetooth Devices

- Ingenico iCMP, iSMP4

## WiFi Devices

- Verifone Vx690(CXPI)
- Ingenico iSMP4

## Linux Supported Devices

- Verifone Mx915, Mx925
- Ingenico iSC250

## Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** `/api/v1/selection{lanelid}` endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- There is a connectivity issue with Ingenico Bluetooth devices (iCMP, iSMP4) when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.
- Setting a custom idle screen image for Verifone Mx9xx devices with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a PinPadException and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- CXPI Vx690 devices may intermittently cancel a transaction. We are actively working with Verifone to identify the issue. Subsequent requests should behave as normal.
- If a TCPIP enabled Verifone Mx9xx device times out on the PIN entry screen, it is a known issue that the device will display an empty screen or remain on CANCELLED and then reinitialize within a minute. Subsequent requests will function as normal after reinitialization.
- The below list of endpoints is temporarily not supported for any of the CXPI devices. If a request is sent to any of the listed endpoints and a card is swiped using a CXPI device, triPOS will return an error. Expected resolution for this issue is after our seasonal code freeze period.
  - **POST** `/api/v1/paymentAccount`
  - **PUT** `/api/v1/paymentAccount/{paymentAccount}`, only when `updateCardData` is `true`.
  - **POST** `/api/v1/token/omni`
  - **POST** `/api/v1/token/paymetric`

# 5.13.0 API Documentation

Version 5.13.0

Release Date: August 25, 2017

## Overview

### New Features & Improvements

- Added support for Verifone Vx805 and Vx690 devices that are loaded with the CXPI firmware. To use a Vx805/Vx690 that is loaded with the CXPI firmware, change the `lane driver` type in the `triPOS.config` to `VeriFoneCXpi`. Vx805 devices loaded with regular XPI can still be used as normal. Please see [CXPI Documentation](#) for more details.
- Added three new prompt types to the `GET /api/v1/input` endpoint. However, note that these new prompts are only supported on a Vx805 running CXPI. Please see the [Input Endpoint](#) documentation for a list of prompts and formats currently supported for each device.
- Added the ability to support multi-line display using the `POST /api/v1/display` endpoint for Vx devices running CXPI. See [Display Documentation](#) for more details.
- Added the ability to support multi-line prompts using the `POST /api/v1/selection` endpoint for Vx805 and Vx690 devices. See [Selection Documentation](#) for more details.
- Added the `storeCard` field to the `/api/v1/gift/activate` `/api/v1/balance` `/api/v1/refund` `/api/v1/return` `/api/v1/reversal` `/api/v1/sale` endpoints to support the processing of StoreCard transactions.
- AutoRental parameters are now supported on the following endpoints: `POST /api/v1/authorization`, `POST /api/v1/authorization/{transactionId}/incremental`, `POST /api/v1/authorization/{transactionId}/completion`, `POST /api/v1/sale`, `POST /api/v1/authorization/force/credit`, `POST /api/v1/sale/token`, `POST /api/v1/authorization/token`. AutoRental parameters should only be used in conjunction with the `AutoRental` market code.
- Added the `/api/v1/gift/reload` endpoint. Please see the [Gift Card Endpoint](#) documentation for more information.
- Added the `/api/v1/barcode` endpoint. Please see the [Barcode Endpoint](#) documentation for more information.
- Added support for the Vx805 CXPI OS 0400 version which supports automatic ADE enablement.
- Added the `/api/v1/receipt` endpoint. Please see the [Receipt Endpoint](#) documentation for more information.
- Added support for the Verifone Vx690 CXPI device with WiFi connectivity only.
- Added an `isUnattended` configurable value to indicate that a device is an unattended device. This is configurable in the `pinpad` section of the `tripos.config` file or in the `api/v1/configuration/lanes` request.
- Ingenico devices now display "Updating, please wait..." while the device checks for updates during initialization. If RBA needs to be updated, the "Updating, please wait..." message will remain on the device's screen for the duration of the update, which can take up to 10-15 minutes.
- triPOS now updates all Ingenico devices to the new version of RBA, 21.02. Please note, the update can take close to 10-15 minutes, and the device will reboot several times during the update process. Please see [Bluetooth Connectivity](#) for known issues about Bluetooth devices during software updates.

### Bug Fixes & Other Changes

- Removed the possible return value for `cardholderAction` "Skipped". For CXPI devices, when using the `GET /api/v1/input` endpoint, if the cardholder is able to skip the screen by pressing the ENTER button without inputting any data, the `cardholderAction` returned will be `OK` and the `inputText` returned will be empty.
- Correct signature status code values are now returned on VeriFone Mx devices for all endpoints that return signature data if a signature entry timeout occurs or if there is an error with the PIN pad.
- Fixed a bug where the transaction amount was not being sent to the processor for all reversals. The transaction amount value now appears in the `totalAmount` field of the triPOS response if the reversal is successful.
- Fixed `GET /card/nonfinancial/{laneId}` for unencrypted cards returning PIN pad error.

- Fixed a bug where the CommercialCardCustomerCode was not being sent to the processor.
- Fixed a bug where SalesTax was not being sent to the processor.

### Discontinued Features

- None

### EMV Certified Devices

#### Vantiv

- Verifone Vx805, Vx690 (CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iUC285

#### First Data

- Verifone Vx805, Vx690 (CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iUC285

#### Supported Devices

- Verifone Vx805, Vx690 (CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iUC285

#### EMV Devices

- Verifone Vx805, Vx690 (CXPI)
- Verifone Vx805
- Verifone Mx915, Mx925
- Ingenico iSC250, iSC480, iPP320, iPP350, iCMP, iUC285

#### IP Devices

- Verifone Mx915, Mx925
- Ingenico iSC250

#### Bluetooth Devices

- Ingenico iCMP

#### WiFi Devices

- Verifone Vx690 (CXPI)

#### Linux Supported Devices

- Verifone Mx915, Mx925
- Ingenico iSC250

#### Known Issues

- The Metadata documentation page does not show fields as being required. Please refer to the [Swagger Documentation](#) for this information.
- The triPOS service may fail when a request is sent during a specific phase of initialization of a Vx805 PIN pad. To avoid this failure, do not make a request to a Vx805 PIN pad until the PIN pad is fully configured.
- The RBA software running on the iSC250 has the following limitations on the **GET** `/api/v1/selection{laneld}` endpoint:
  1. Some numeric-only strings (e.g. "123") are reserved as Prompt IDs in RBA and will not be displayed as raw text on the prompt or buttons. If this occurs, please try to put a space at the beginning of the string for it to be displayed correctly.
  2. RBA currently displays "Input Accepted" on the PIN pad after the cardholder makes a selection. The PIN pad will remain on the "Input Accepted" screen, rather than the semi-custom screen, until a new request is sent to the PIN pad.
- The Ingenico RBA version 17.06 update process takes a **full 10-15 minutes** to complete. During that time, the PIN pad does not show any indication that the firmware files are being downloaded. Check the logs for information on the upgrade process and whether or not the initialization process is successful.
- There is a connectivity issue with Ingenico Bluetooth devices when attempting to download files via Bluetooth connection. Please see [Bluetooth Connectivity](#) for workaround steps to download files to these devices.
- Setting a custom idle screen image for the Verifone Mx915 and Mx925 with triPOS running on Linux fails because the mono installation is missing a dependency.
- Verifone Mx9xx and Vx devices display a "CARD READ ERR" when a card containing only track 3 data is swiped. Transactions not canceled will time-out and return a `PinPadException` and "VerifoneXPI S20 timeout response" message. This issue is pending resolution from Verifone.
- There is an issue with Verifone Mx9xx devices when upgrading from earlier versions of triPOS to release 5.12. If the PIN pad goes into a state of repeated initialization, please upgrade to release 5.9 prior to upgrading to release 5.12 or later.
- There is an issue when pressing cancel on a PIN pad while on the Payment Type selection screen where the transaction continues on for processing and returns the `paymentType` as none.

# 5.12.0 (And Older) API Documentation

Version 5.12.0 and older

As of April 2019, release notes for triPOS ver 5.12.0 and older, have been removed from this document and are available in a release notes archive document located at WorldPay O.N.E. portal.