

This document contains rules and guidelines that customers have to take into consideration when developing applications running on Westpay Carbon terminals.

Hardware

Model	CPU	RAM	Disk	Network	Display	Printer
C10	1.2 GHz, Quad core	1 GB	8 GB	Ethernet	4" 400x800	-
C100	1.2 GHz, Quad core	1 GB	8 GB	Wifi, 3G/4G	4" 400x800	Yes

Keep in mind that the terminal resources are shared with the Westpay Payment Application Suite.

The customer application must take care not to use so many resources that the payment application is affected or shut down.

The payment application reserves the right to disable the terminal if it detects any activity that presents a security risk or other unacceptable behavior by third party software.

Operating system

The terminals are running **Android 6**. The supported target framework must be **API Level 23**, or lower.

In order to meet PCI Security requirements, following file types have to be digitally signed by Westpay in order to be used :

*.apk	Android Package files
*.zip	Archive File format
*.so	Shared Object files
*.jar	Java Archive files
*.aar	Android Archive files

All software that will be installed on a terminal has to be digitally signed by Westpay.

Wifi networks must use WPA or WPA2 encryption.

Bluetooth is not enabled.

The built-in TLS library only supports the following cipher suites:

TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256
TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA
TLS_RSA_WITH_AES_128_GCM_SHA256
TLS_RSA_WITH_AES_256_GCM_SHA384

TLS_RSA_WITH_AES_256_CBC_SHA

Permissions

Customer applications have to list all required Android permissions in the manifest file.

The following permissions are the only permissions that applications are allowed to use:

ACCESS_NETWORK_STATE
ACCESS_NOTIFICATION_POLICY
ACCESS_WIFI_STATE
BATTERY_STATS
BROADCAST_STICKY
CAMERA
FOREGROUND_SERVICE
GET_PACKAGE_SIZE
GLOBAL_SEARCH
INSTANT_APP_FOREGROUND_SERVICE
INTERNET
MODIFY_AUDIO_SETTINGS
PACKAGE_USAGE_STATE
READ_CALENDAR
READ_CONTACTS
READ_EXTERNAL_STORAGE
READ_SYNC_SETTINGS
READ_SYNC_STATS
REQUEST_IGNORE_BATTERY_OPTIMIZATIONS
VIBRATE
TRANSMIT_IR
WAKE_LOCK
WRITE_CALENDAR
WRITE_CONTACTS
WRITE_EXTERNAL_STORAGE

Performance

On battery-powered terminals (e.g. the C100), extra care must be taken so that a customer application does not use excessive resources and drain the battery power unnecessarily.

Please refer to the official Android guidelines on conserving power: <https://developer.android.com/topic/performance/power>

Settings & Printing

To configure or change settings in Android for things like Wifi, GSM, Power saving profiles or alike you will have to use the Payment

Application Integration library* to do so. This is to ensure compliance with PCI making sure the third party software, POS Application, is kept outside the PCI Scope.

* The specifications for the Payment Application Integration Library will be provided at a later stage.

Payment application integration

When a terminal is powered on, the Westpay Payment Application (PA) first starts and initialises itself. When the PA is ready to hand over to the customer application it will broadcast an intent with the action set to **se.westpay.intents.START_APP**. The customer application must define an intent filter that receives this intent.

After this point, if the customer application needs to use the Westpay Payment Application, it should do so through a library that will be provided by Westpay.

Westpay does not take any responsibility for the quality of customer applications.

The customer must take into consideration to carefully test all software running on Westpay Carbon terminals.