



Release Notes

TAPA Software (Atos)

Document Type	Release notes
Version	3.7.15
Date	20.09.2017
Confidentiality	None
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1 | Release Notes

1.1 Version 3.7.15

Release Date

20.09.2017

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- NONE

New functionality

- QR code menu

Changed functionality

- Faster MobiltDankort transaction

Bug fixes

- Better handling of abort MobiltDankort transaction
- Error in binary receipt

Release Date

27.03.2017

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- NONE

New functionality

- **Mobilt Dankort BLE and QR code**
- **Mobilt Dankort HCE J/Speedy**
- **Payment Account Reference (PAR) for Loyalty and e-receipt**
- **Beacon version 2.11**

Changed functionality

- **New DCC files**
- **BLE firmware version 6**
- **Dankort logo on idle screen**

Bug fixes

- **NONE**

1.2 Version 3.7.14

Release Date

02.08.2017

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **faster transasction**

Release Date

25.04.2017

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **New beacon version 2.05**
- **Better installation process of MobilePay**

Changed functionality

- Added ip configuration to terminal report

Bug fixes

- Beacon timeout changed to avoid error 0x1AF3
- Better handling of last EOD

Release Date

10.03.2017

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- NONE

New functionality

- Added Mobilepay transactions to Last EOD
- BLE version added to Terminal Report
- CBP version added to Terminal Report
- Automatic setup of USB interface for VAS

Changed functionality

- NONE

Bug fixes

- Better handling of Pinpad synchronization error 0x11E4
- Better handling of internal memory

- **Possible to disable beep on Pinpad**

Release Date

08.02.2017

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **MobilePay 1.10**
- **Display contactless animation on amount screen**

Changed functionality

- **DCC for Contactless transactions can be enabled**
- **Cancellation now requires the correct equal amount to be cancelled, otherwise rejected**
- **BLE firmware updated to version 5**

Bug fixes

- **Occasional connection loss to ECR**
- **Formatting errors corrected in terminal report, network report, end of day report and transaction list report**

Release Date

20.12.2016

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **VAS framework**

Changed functionality

- **Terminal report updated with additional information**
- **End of day report formatting corrected**
- **Display improvements VAS**
- **Added flexibility to idle screen logo display**

Bug fixes

- **Improvements to stability ecr communication**
- **Stability improvements to beacon / BLE / bluetooth**
- **General performance improvements**

Release Date

30.11.2016

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Mobile Pay 1.00**

Changed functionality

- **ECR ip connect**

Bug fixes

- **Fix contactless report**

Release Date

07.10.2016

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Terminal Report updated**
- **TCP/IP added to USB interface for Yomani 2**
- **CRC-ID and pan added to indentify VAS**
- **PSAM version 9.x**
- **Terminal Report updated**

Changed functionality

- **Fee calculation**
- **Better handling of ECR connect/reconnect via TCP/IP. When a new connection is made the terminal will drop the old connection and start using the new one if possible**

- Better handling of ECR 'TLV not allowed' when reconnect
- Better handling of ECR Communication errors

Bug fixes

- Better handling of VAS

1.3 Version 3.7.12

Release Date

19.06.2016

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- NONE

New functionality

- NONE

Changed functionality

- Swipp release 1.11

Bug fixes

- NONE

Release Date

13.04.2016

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- NONE

New functionality

- NONE

Changed functionality

- **Swipp release 1.00**
- **Swipp installation**
- **Swipp support for BLE**

Bug fixes

- **NONE**

Release Date

11.02.2016

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Forced offline NFC Dankort and VisaDankort below CVM limit**
- **XML protocol expanded to support more than one host (Swipp)**
- **Post transactions**

Changed functionality

- **Forced offline no longer uses MI bypass flow**
- **Better texts send to ECR**
- **Expanded Drop IP functionality**
- **A progress bar is showed instead of retrying in user display**

Bug fixes

- **Issue related to wrong TCC on receipt**
- **Issue related to wrong CRC-Id in log**
- **Better handling of fallback transaction**
- **Better handling of Cash Back transaction**

1.4 Version 3.7.11

Release Date

24.08.2015

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **Package version 37.11.01**
- **Activate NFC reader**

New functionality

- **NONE**

Changed functionality

- **Accept all MSC ranges from PSAM**
- **Accept all limits from PSAM**

Bug fixes

- **NONE**

Release Date

25.06.2015

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Support NFC Dankort and VisaDankort**
- **Support Cashback Point**

Changed functionality

- **Force psam installation**
- **Faster NFC transactions**

Bug fixes

- **Issue related to wrong TCC on receipt**
- **Better handling of unknown NFC cards**

1.5 Version 3.7.10

Release Date

06.03.2015

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **New toolbox from Atos 24.36.xx**

New functionality

- **Support NFC payWave and PayPass**
- **Support NFC PSAM late amount**
- **Support NFC cashback**
- **New configuration in SpinConnect (NoCash)**
- **Transaction speed improvement**
- **Advices send to the ecr**
- **Silent Abort**
- **Bankaxept Exception Rules**
- **Support for PTS keys**
- **Support for User input**

Changed functionality

- **Change Capital letters**
- **ISDN no longer supported**
- **The Yomani terminal now displays a graphical colour user interface to the cardholder when connected to a merchant unit.**

- The terminal now prevents invalid simultaneous use of cashback and gratuity

Bug fixes

- Issue related to wrong TCC on capture
- REF number now included on signature rejected receipt
- Salt is no longer updated if not active
- Sometimes fee was missing on receipt

1.6 Version 3.6.06

Release Date

11.12.2015

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **New toolbox from Atos 24.36.xx**

New functionality

- **Support for PTS keys**

Changed functionality

- **NONE**

Bug fixes

- **NONE**

1.7 Version 3.6.05

Release Date

02.10.2014

Maintenance release

The following maintenance release (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **3.6.05.001**
New toolbox from Atos

New functionality

- **NONE**

Changed functionality

- **ISK currency exponent**
The currency exponent is changed from 2 to 0.

Bug fixes

- **Scanbarcode and Keyenter Offline transactions**
Scanbarcode and keyenter transactions are now possible again.
- **Subnet mask and Gateway are sometimes missing**
A correction has been made to ensure that correct gateway and subnet mask are correctly returned and printed.

1.8 Version 3.6.04

Release Date

02.09.2014

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **Better handling of Linux semaphores**

Due to a limitation in the way semaphores work on Linux, there was a limit on the amount of possible operations. We now work around this limitation, that could result in the terminal being stuck, or some other weird behavior, when the semaphore limit was hit (i.e. when the terminal had been running without a restart for a long time).

1.9 Version 3.6.03

Release Date

01.08.2014

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **New trace**
Extra trace added if transaction is forced offline.

Changed functionality

- **Forced offline changes**
MI bypass flow used if forced offline.

Bug fixes

- **NONE**

1.10 Version 3.6.02

Release Date

09.07.2014

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **PSAM secure hash function**
PSAM secure hash now works with new PSAM.

1.11 Version 3.6.01

Release Date

02.06.2014

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **3.6.01.001**

External EMV Engine is no longer started, thus reducing CPU load. This fixes an issue with slow YOMANI, XENTA and XENTISSIMO terminals.

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **Better handling of ECR to USB connection**

Better handling of ECR to USB connection when ECR has been rebooted while terminal is closed

- **Format error in field 46 tag TD**

Format error in field 46 tag TD when starting a KeyEntered transaction

1.12 Version 3.6.00

Release Date

25.04.2014

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **A platform upgrade has been released for the YOMANI 2.**

New functionality

- **Added support for new DCC Retail PSAM**
The new PSAM type “DCC Retail” is now supported. This PSAM makes it possible to enter PIN when a Dankort is inserted but wait for DCC on relevant cards.
- **Maximum transaction amount**
A maximum transaction amount can be set, to stop any transaction (purchase or refund).
- **Support for merchant unit on YOMANI 2**
The platform upgrade has added support for the merchant unit on YOMANI 2 terminals.
- **Clerk ID on receipt**
The clerk ID has been added to the receipt.
- **TCS on the terminal report**
“Point Reporter” (TCS) has been added to the terminal report.
- **“Easy Installation”**
A new initial configuration routine has been added for the customers to set up their own terminal.

Changed functionality

- **Pay with cash in SpinConnect now uses the entered amount**
When the merchant has changed the amount and selects “CASH”, the SpinConnect server now gets the entered amount instead of the the full amount of the bill.

Bug fixes

- **Better handling of communication errors with PSAM**
This should completely remove errors where the terminal ends in “SYS MALFUNCTION FF25”.
- **Better handling of different abort operations**
Sometimes the terminal ended in “SYS MALFUNCTION FFF3” when either the customer or merchant aborted the transaction. Several steps has been taken to prevent this.

- **Better handling of ECR to USB connection**

On connection loss between ECR and the terminal, both the DLL and the terminal now handles the reconnection much better.

1.13 Version 3.5.05

Release Date

29.09.2014

Maintenance release

The following maintenance release (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **Subnet mask and Gateway are sometimes missing**

A correction has been made to ensure that correct gateway and subnet mask are correctly returned and printed.

1.14 Version 3.5.04

Release Date

13.03.2014

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **3.5.04.001**
Updated DCC files.

New functionality

- **CheckCardNoDialog**
The administrative function CheckCardNoDialog, makes it possible to check for card removed after a transaction without a dialog popping up.
- **Idle3**
The administrative function Idle3 used to wait for cardswipe now close quickly after you have told it to stop in callback BreakIP.
- **TerminalProperties**
The TerminalProperties (PropsGetLabels and PropsExtendedReceiptLabels) no longer show a result dialog.
- **MIFARE Ultralight support**
We are now able to read MIFARE Ultralight NFC devices.

Changed functionality

- **NONE**

Bug fixes

- **Authorisation code on receipt**
An authorisation code is written on the receipt if it is received from the PSAM.
- **Currency should be merchants**
When merchant is entering amount it is always in merchant currency, and never in cardholders.

1.15 Version 3.5.03

Release Date

06.01.2014.

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **Loading of logo**
Point's default idle logo is only loaded if no customer logo is present.
- **Better abort handling**
Better handling of USB reconnect, giving quicker response to connect.
- **Refund receipt is printed as one long receipt**
The terminal pauses printing after cardholders part of the receipt has been printed, showing the text "TRYK". This way it is possible to separate cardholders receipt, from merchant receipt.
- **Misleading "OK" button on "CONFIRM AMOUNT" screen**
"OK" button in "Confirm Amount" screen is now replaced with text "OK".

Bug fixes

- **When terminal and Merchant Unit is used a zero transaction is sometimes started.**
Terminal no longer starts a zero transaction.
- **Transaction screen same on local cards and normal cards**
Local card has now the same transaction screen as normal card.
- **SUT: INFO button will ask for card after printing temporary receipt**
After pressing INFO button and a gratuity receipt is printed, the terminal does not ask to insert card.

1.16 Version 3.5.02

Release Date

10.10.2013

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Handling of Secure Hash to Electronic Receipts**
Handling of Secure Hash to Electronic Receipts has been added.
- **Drop the IP connection or reboot terminal on another port**
ECR connected via IP can now drop the IP connection or reboot terminal on another port.
- **Electronic receipt added**
storebox.dk has been added as an electronic receipt.
- **Full terminal name displayed**
Full terminal name is now displayed on terminal report.
- **Disconnect USB/serial**
Try to get a new connection on the device in case of this error instead of just stopping.

Changed functionality

- **Clean chip card reader**
On the OPU we now display “RENS KORTLÆSER” along “INGEN KVITTERING”.
- **Signal when teleload is finished**
We can send a message to a external server as teleload has finished.
- **Big fee table upgrade**
The fee table has been expanded for more entries.

Bug fixes

- **More than 12 digits in to PIN**
When pressing more than 12 digits in to PIN, the terminal does not get a technical error.
- **Prepaid Scanned Purchase Causes Hang If Not Configured**
We now stop the transaction with asw 1703.
- **Terminal connected via IP should be able to drop IP and reset (restart)**
A message can be sent to the terminals IP port 2001, to either drop the IP connection or restart the terminal.

- **"Retrying" no longer displayed**
When insert card first and then make a refund, "Retrying" is no longer displayed.
- **Terminal no longer hangs "System Error" or "No Receipt"**
Terminal no longer hangs after printer lid has been opened, and after 10 minutes the lid is closed again when terminal is running SUT or OPU.
- **Amount is entered in kroner**
If card is inserted first, amount is entered in kroner instead of øre.

1.17 Version 3.5.01

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Amount in whole kroner or øre**
It is now possible to enter whole amount in kroner or øre. Terminal is configured for either kroner or øre and this can be changed.
- **ECR Support for Scan Bar Code transactions**
Terminal can now handle Scanned Bar Code transactions from the ECR.
(See: OTRS_3.3.2_20121201.pdf section 1-10.9.5.3 and 1-10.9.5.4, with Table 1-10.9 – Scanned Bar Code Data for details).
- **Support for Extra Applications - ui_server image selection etc.**
New DLL demo has been added. When “Wait CardSwipe” button is pressed in “PointKasse-DemoDLL_TAPA3.exe” two new options has been added:
 “Idle” (forces the idlescreen to be shown), and
 “ClearScreen” (makes the selected text the first on a blank screen).
- **DCC question should use new user interface on Yomani with ECR**
When a transaction is started with an ICC030 card, the DCC question looks like the rest of the UI (i.e. use the user interface).
- **Possibility to download images to terminal**
It is now possible to download images to the terminal.
- **Gratuity flow should use new user interface on Yomani with ECR**
When a transaction is started with an ICC001 card, all gratuity screens looks like the rest of the UI (i.e. use the new user interface)
- **Application selection should use new user interface on Yomani with ECR**
When a transaction is started with an ICC124 card, the terminal displays a menu looking like the UI (i.e. use the new user interface).

Changed functionality

- **Auto select BankAxept application if presented with the choice**
We no longer auto select BankAxept AID if not directly specified in the ‘/dk/preferredAid.txt’ file.
- **“ENTER EXTRA AMOUNT” text shown on ‘Enter Total Amount’ screen.**
On the ‘Enter Total Amount’ screen, the text “ENTER TOTAL AMOUNT” has been changed to “ENTER EXTRA AMOUNT”.

- **Terminal should no longer ask for gratuity, but instead go directly to “ENTER TOTAL AMOUNT”**

According to OTRS 3.3.2 of 2012-12-01 we should no longer ask for gratuity, but only ask for a total amount. Additionally, we have been given permission, by Nets, to skip the “ADD EXTRA / TIPS?” question and instead go directly to the “ENTER TOTAL AMOUNT” screen.

- **Timeout in PIN screen should be 5 minutes**
When using an APE/DAPE PSAM, the terminal shall allow the user at least 5 minutes to enter his/her PIN, before the amount is displayed.
- **Removal of texts regarding “PIN” from signed texts**
“ENTER NEW PIN” has been changed to “ENTER NEW GSM PIN”.
- **PIN purchase is not possible**
We now do not display “PIN” when entering the amount for a “forced PIN”. The problem appeared because we no longer are allowed to sign the word “PIN”.
- **Extra space needed in front of input field when entering gratuity in JPY**
If JPY is selected as currency and a random value is entered on the “Extra/Tips” screen, entered amount now starts from the left and with a space between the “EXTRA:” text and the number.

Bug fixes

- **SendLog with IP routing**
If terminal was setup for IP routing (no Ethernet cable in terminal) SendLog was not working.
- **Cancel a multi application transaction**
On a multi application card it was not possible to cancel transaction by removing card in the application selection menu.
- **ECR: Restart was needed after Update PSAM from ECR**
A restart of the terminal was needed when PSAM had been updated from the ECR.
- **If IP routing was active, the terminal was unable to start PSAM installation**
If IP routing on a Xenta with 3.5.00 was enabled, the terminal was unable to start PSAM installation. And if a PSAM update was forced through PWE, it would not install either.
- **Wrong CVV input in key-enter, places “0000” in retry CVV input**
If less than three digits were entered in CVV the text “Fejl i kontrolcifre” was displayed and when CVV was retried, “0000” was shown.
- **clerkID missing after timeout on ref. nr. screen**
After timeout on ref. nr screen, clerkID was missing in next transaction.
- **Not possible to enter the “Annuler AUT” menu**
In “Annuler AUT” menu nothing happened and the screen went blank.
- **Confirmation screen/gratuity was missing, on Capture authorization**
After a completion of an original authorization and after inserting ref. nr. in “Capture Menu” the confirmation screen was skipped and the gratuity question not asked.
- **After a time out in “Amount” screen the screen went blank**
After waiting 30 seconds after a transaction was made there was a time out and the screen went blank.
- **Improved terminal response time if one Nets server is down**

If one of the two Nets hosts is not accessible the terminal will quickly divert transactions and EndOfDay routines to the remaining Nets Host.

- **When a customer logo was present, the “ENTER EXTRA AMOUNT” screen was not showing**

When a transaction of any amount was made the terminal stayed in the previous screen (probably the idle screen). It now asks whether or not the customer wants to add gratuity.

- **Customer logo was not showing on “PIN” and “Transaction” screens**

When a transaction of any amount was made after entering PIN, the “PIN” and the “Transaction” screens did not show a customer logo in the top right corner. On the “PIN” screen the customer logo is now briefly shown, and on the “Transaction” screen the logo is never shown.

- **Capturing an original authorization with JPY as currency, the capturing amount returns as original currency**

When an original authorization with JPY as currency was made with a capture on the previous token, the currency was in the original currency. It is now in JPY.

- **Wrong text in “Gratuity” confirmation screen, on a refund transaction**

The text “Purchase” was written in “Gratuity” confirmation screen, on a refund transaction. Changed to “Return”.

1.18 Version 3.5.00

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Colour User interface**
The Yomani terminal now displays a graphical colour user interface to the cardholder.
- **Cashback**
On an ECR integrated terminal it is now possible to specify a cashback amount from the ECR so cardholder will receive cash in hand.
- **ECR get and set ip setting via Admin commands**
From the ECR it is now possible to get and set the terminals IP settings.
- **Early e-kvittering**
If configured on terminal the e-kvittering token will be sent earlier in the ECR flow.

Changed functionality

- **PSAM masks carddata**
The terminal will no longer mask carddata. Now it will be only the PSAM that decides if and how much of a cards data that should be masked.
- **Timeouts removed except PIN Prompt**
All timeouts in terminal removed except for PIN entry timeout.
- **Improved USB port connection**
If USB port loses connectivity the terminal will reset USB port to better re-establish connection.
- **SpinConnect “check” changed to “bill”**
In SpinConnect the word “check” has been changed to “bill”.
- **Faster first transaction on SingleUnitTerminal**
On a SingleUnitTerminal the sorting algorithm for stored receipts has been optimized to enable a fast first transaction on SUT.
- **Change contrast on Yomani**
On the Yomani terminal using “change contrast” will actually instead change intensity since this is the only possible “light change” on this display type.
- **QUASI and QUASI_CASH transaction now easier to implement fro ECR**
An ECR can now start QUASI and QUASI_CASH transaction by using default Transaction-Type, as always correct QUASI / QUASI_CASH PSAM must be installed.
- **Default ClerkID changed from “1” to “0”**
Default ClerkId changed to “0”.

Bug fixes

- **Text corrections**

Various texts in various languages have been corrected.

- **ClerkID asked twice with Application Selection**

When doing an application selection the ClerkID will be asked again.

- **Amount input displayed 2 times, when completing 6985 fallback purchase**

On a special magstripe fallback situation we displayed amount screen twice.

- **ECR: Information Missing on final fallback receipt**

Some information was missing on a fallback receipt for special fallback situations.

- **Application selection error**

If selecting an application that cannot be used resulting in “KAN IKKE ANVENDES” and then selecting an application that is OK the transaction will be incorrectly rejected.

1.19 Version 3.4.07

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Support for Yomani 2**

The terminal SW can now function on a Yomani 2 terminal.

- **Scanned bar code transactions from the ECR**

ECR can now start a transaction by scanning a barcode if the ECR has a bar code scanner, it is to be used for prepaid cards.

Changed functionality

- **NONE**

Bug fixes

- **PSAM update via IP Routing**

If terminal is setup without Ethernet cable its IP traffic must be routed via the PC. In such a setup it was not possible to do PSAM updates, this has been fixed.

- **Memory leak**

Via code inspection “memory leak” was discovered. This has been fixed to improve terminals use of internal memory.

1.20 Version 3.4.06

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **Automatic download did not trigger**
To comply with new Nets guidelines, a PSAM version is now presented in an xx.xx.xx format (i.e. 8.00.02).
- **E-kvittering token was not generated**
An E-kvittering token was not generated as intended during key enter and fallback transactions.
- **Incorrect handling of track 3 data**
If a "Card Data Protection" enabled terminal was presented with MSC track 3 data, it was not handled correctly in relation to transaction flows and "Application Selection".
- **Menu password protection did not work**
In certain SpinConnect configurations, the password protection of the main menu did not work.
- **Terminal could hang due to an ECR command**
If an ECR sent an "Unlock receipt" command, the terminal could hang due to the deactivation of this function in a previous release.
- **Unable to capture token**
In certain situations, the terminal was unable to capture a token transaction if the language was set to Finnish.

1.21 Version 3.4.05

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **NONE**

– INTERNAL RELEASE –

1.22 Version 3.4.04

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **PSAM version format**

To comply with new Nets guidelines, a PSAM version is now presented in an xx.xx.xx format (i.e. 8.00.02).

Bug fixes

- **NONE**

1.23 Version 3.4.03

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **Expanded support for NFC**
Support for NFC has been expanded beyond the FairPay application.
- **First print optimization**
Receipt storage management has been changed in order to optimize the first print after a boot.
- **Improved handling of local card**
Handling of local card has been improved to align with new PSAM functionality.
- **Improved message handling**
The terminal's internal message handling has been optimized in order to enhance transaction processing time.
- **Support for EMV 4.3a**
The terminal code has been updated to align with the EMV 4.3a specification.

Bug fixes

- **NONE**

1.24 Version 3.4.02

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **NONE**

Bug fixes

- **Bad timing could cause abort**

If a card was inserted prior to "Awaiting card", with a certain timing, it could cause the transaction to abort.

- **Receipt confirmation from ECR not handled**

Under certain circumstances, the terminal failed to handle the confirmation from an ECR, that a receipt had been printed.

- **Unusual long wait upon card insertion**

If a card was inserted into an ECR connected terminal, prior to the amount transfer, there was an unusual long wait before reaching the PIN prompt.

1.25 Version 3.4.01

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **NONE**

Changed functionality

- **Support for NFC in FairPay**

The application "FairPay" is now able to read MIFARE DESFire NFC cards.

Bug fixes

- **Incorrect version number displayed during boot**

The value used to display software version number during boot was not correct.

- **Incorrect version number provided to ECR**

The value used to provide software version number to an ECR was not correct.

- **Not possible to enter DNS 2**

In the network setup, it was not possible to enter a value for DNS 2.

- **Unable to enter network setup**

It was not possible to enter network setup on the first attempt.

1.26 Version 3.4.00

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **NONE**

New functionality

- **Card Data Protection**
The terminal is now able to handle encrypted communication towards the PSAM (v. 71.010+).
- **Check for available memory**
The terminal will enter state "System error 5005", if the available memory is low.
- **E-kvittering**
Added support for transfer of transaction data to 3rd party - E-kvittering.
- **Extended Issuer Envelope**
Support for "Extended Issuer Envelope" (EIE), which provides the ability for the ECR to send data to/receive data from the card issuer in the normal transaction flow.
- **Fairpay**
The application "Fairpay", from 3rd party vendor "Softways", which handles loyalty cards, has been implemented.
- **Key enter on ECR based terminal**
With the appropriate command, it is now possible to initiate a key enter flow from the ECR. The actual PAN entry is performed on the terminal.
- **PCI log**
The terminal now maintains a log that is PCI compliant and contains terminal configuration/PSAM changes.

Changed functionality

- **Account type selection offered during key enter**
Account type selection is now offered to a relevant PAN, if permitted by the PC table, during a key enter flow.
- **Automatic download**
The terminal logic related to the automatic download of updates (i.e. parameters, fee list and software) has been enhanced. The download will trigger, at a pre-defined date/time, if such tag has been downloaded at a previous occasion. After the set time, the download will initiate 10 minutes after the datastore has been emptied (End of Day).
- **Card issuer name is printed on receipt**
Card issuer name (TR7) is now printed on all receipts, if the information is available.
- **Chip card will abort the transaction if a magnetic swipe has been performed**
If a chip card is inserted into the terminal, after a magnetic card has been swiped, the terminal will now abort the transaction flow that was initiated by the initial swipe.
- **ECR integrated terminals will no longer enter the state "No receipt"**

If an ECR fails to confirm the print of a purchase receipt in a timely manner, the terminal will no longer lock down in the state "No receipt". It is the sole responsibility of the ECR to print the receipt and the terminal supports a fetch command, should the data be desired for a second attempt.

- **Fee on DCC transaction**

The terminal's implementation of fee on a DCC transaction is now aligned with Nets' implementation.

- **Network setup**

The routines regarding network setup have been improved and security settings updated to conform to industry standards. The IP routing setting and WLAN setup can now be found in the TAPA software and features an enhanced routine for networks that broadcast SSID (select on screen to connect). Encryption settings are now restricted to WPA2/AES only.

- **No fee values shown on preliminary receipt**

Fee values are no longer shown on a preliminary receipt but the advisory "Surcharge will be added" remains.

- **Quasi-cash logic changed**

Quasi-cash and cash transactions have been adapted to appear as regular transactions (menus and display text). Cash receipts still contain special data.

- **Reset network interface removed**

The function "Reset interfaces" (which was implemented in version 3.3) has been removed due to general changes in the network logic.

- **Text changed**

If a wrong GSM PIN has been entered, the subsequent screen now clearly indicates that the question is presented again due to wrong PIN entry.

- **Text changed**

Text changed, in menus and on receipts, from "PBS" to "Nets" or "Teller" as required.

- **TVR/TSI are printed on reject receipts**

The values for Terminal Verification Result/Transaction Status Information (FI6) are now printed on all reject receipts.

Bug fixes

- **Display error**

If a parameter download was initiated on a GSM enabled terminal, without a SIM card installed, the display did not clear correctly when announcing the failed download.

- **Gratuity did not work in Finnish**

If the gratuity flow was activated, while the terminal language was set to Finnish, it did not complete correctly.

- **Gratuity flow included fee in purchase amount**

If a fee was added to a purchase amount, it was incorrectly added to the purchase amount value during the gratuity flow, while it should be listed separately.

- **Local PAN value on terminal report not active**

The value for "Local PAN" on a terminal report did not update when the parameter was changed.

- **PC table was not deleted when no longer relevant**

If a PC table based PSAM was swapped with a non PC table based PSAM, the terminal did not delete the installed PC table.

- **Phone prefix setting not active**

When changing communication interface to PSTN, the terminal would offer IP settings, instead of phone prefix, in the setup menu.

- **Pre-authorization did not work with NETS gift card**

If a pre-authorization was completed using a NETS gift card, the token was not stored correctly and consequently it could not be retrieved.

- **Quasi-cash did not work on a SUT**

If a single unit terminal (SUT) was set to terminal type "Quasi-cash", the terminal did not function as intended.

- **Refund not possible with a multi application card**

If a multi application card was used on a single unit terminal (SUT), it was not possible to use the refund flow.

- **Text changed**

Several texts related to GSM/GPRS operation were presented in Danish even though terminal language was set to something different.

- **Text changed**

Certain German texts were too long for the display and have been abbreviated as needed.

- **Text changed**

When using the terminal function "Move/delete advice", the printed receipt was always in Danish even though the terminal language was set to something different.

- **Text changed**

When printing a "network report", the value for "Domain" was erroneously forced down on a new line.

- **Text changed**

When changing communication interface to PSTN, the terminal would display the prefix setting in Danish even though the terminal language was set to something different.

- **Text changed**

Various SpinConnect texts have been updated to use the word "bill" instead of "receipt" when the former is better suited.

- **Text changed**

Text on receipts related to signature transactions, made on a terminal set to Swedish language, has been updated to conform to OTRS guidelines.

- **Text changed**

Text on the reports "WLAN settings changed" and "WLAN scan" was always in Danish even though the terminal language was set to something different.

- **Text changed**

Various text in the Swedish translation was updated to fix grammatical errors.

- **Text changed**

Usage of the "Move/delete advice" flow was only supported in Danish/English.

1.27 Version 3.3.00

Maintenance releases

The following maintenance releases (that relate to changes outside the TAPA software – i.e. terminal platform, scripts or signed texts) have been issued:

- **3.3.00.003**
A new terminal platform has been implemented in order to accommodate a hardware revision in the Xentissimo terminal.
- **3.3.00.002**
A WLAN enabled terminal could freeze, if it was not attached to a WLAN for a prolonged period.
- **3.3.00.001**
The terminal was unable to handle GSM PIN entry. The terminal was unable to activate the function “Capture” (in relation to a preauthorisation) if the terminal language was set to German.

New Functionality

- **Ability to handle Point local card**
The terminal does not forward the PAN to the PSAM if it begins with 9208xxx (Point local card).
- **Added support for Yomani merchant unit**
If a Yomani terminal is to be used with a merchant unit, it is now possible to switch between MU and ECR communication over USB in the “Admin” menu.
- **Reset network interface**
The function “Reset interfaces” has been implemented (in the Admin module) to counter rare instances where the terminal was unable to gain an IP address from the network. Upon activation, the terminal will take down the network interface, reboot the terminal and reinstate the network interface.
- **SpinConnect**
New type of integration to be used with the Xentissimo terminal. The ECR functions as a server and transactions are then fetched by the terminal.
- **TCS**
Transaction Collecting System (TCS) has been implemented. This function relays End of Day (EoD) data to a central system for later review on a selfcare portal. The function also allows for a shorter EoD print (no transaction list).

Changed Functionality

- **Advice reconciliation data to ECR changed**
Advice reconciliation data can now be fetched by the ECR with an appropriate admin command.
- **APE/DAPE incompatibility warning**
The terminal warns if the function APE/DAPE (Accelerated PIN Entry/Dankort Accelerated PIN Entry) is enabled at the same time as incompatible functions (DCC or Gratuity/Tips)

and the terminal subsequently locks down.

- **Batch number value can be defined**

The value for batch number can now be changed by the ECR (with support of up to 12 alphanumeric characters) and reset to auto-numbering with the appropriate command.

- **DCC handling optimized**

DCC handling has been optimized in relation to when in a transaction flow the function is offered.

- **Different error code for misplaced PSAM**

If a PSAM has been installed in an incorrect slot (anything but slot 2), the terminal responds with error code FF24 ("PSAM not installed") instead of FFF6 ("Unable to install PSAM").

- **Expanded support for Yomani connection settings**

If a Yomani terminal is integrated with an ECR, it is now possible to define specific connection speeds (from 4800 to 115200 baud) on both RS232 and USB.

- **Fee report disabled**

The report "Fee" has been disabled to align with new regulations.

- **Increased the number of possible fee table entries**

In order to accommodate larger fee tables, the number of maximum possible entries has been increased.

- **PSAM is now compatible with "IP routing"**

It is now possible to install a PSAM if communication is set to "IP routing".

- **Terminal report change**

Terminal report has been cleaned up and function values have been changed to text (Yes/No) when possible.

- **Text changed**

Due to multiple interpretations of the word "authorization", in Danish, in the OTRS, there was an inconsistency in the terminal text (menus/receipts).

- **Text changed**

In the "Admin" menu, #20 ("IP routing") has been changed to <IP routing start> and <IP routing stop> to better indicate what the function will do.

- **Text changed**

Surplus blank lines were removed from the End of Day report to conserve paper.

- **Track3 reading made optional**

Reading of Track3 data is now optional and disabled as default.

- **User choice if terminal runs out of paper**

If the terminal runs out of paper during the print of a report, the print job does not time out and the user has to insert more paper (automatic resume) or cancel the print job (by pressing <STOP>).

Bug fixes

- **Clerk ID missing after a reversal**

If a transaction was reversed, the next transaction was missing the clerk ID question.

- **DCC did not work with pre-authorization flow**

If a DCC enabled card was used with a pre-authorization, the terminal did not offer DCC under certain circumstances.

- **DCC next update removed from print if IP routing is enabled**
If a terminal is configured with IP routing, the DCC next update value is not relevant (process initiated by ECR) and has been removed.
- **DCC transactions not handled correctly if currency was JPY**
Handling of exchange rates has been changed to better accommodate JPY.
- **Display error**
During a fallback flow (unable to read chip), the display was not cleared correctly when reaching the "Use magnetic reader" text on a single unit terminal.
- **Display error**
If a transaction flow included "Account type selection", the display would flash periodically during the account question.
- **Display error**
If a terminal account type selection was in use during a refund, the display would erroneously state "Buy" instead of "Refund".
- **Erroneous expiration date was not blocked during "Key enter"**
If an erroneous expiration date was entered during the "Key entered" flow, the terminal/P-SAM did not reject the value (instead it was up to the acquirer).
- **Fallback not handled correctly in the refund flow**
If the PSAM returned with ASW 6985, calling for a magnetic swipe, during a refund flow, the terminal would switch to a purchase flow.
- **Fee from ECR was ignored**
If a fee value was presented to the terminal, by an ECR, it was not put into use as intended.
- **Gratuity amount retained after entering original total**
If an extra amount was entered in the gratuity flow and the total subsequently changed to the original amount, the extra amount was still displayed in the final list.
- **Gratuity did not work during cancellation**
If gratuity was enabled, the flow did not work properly during a cancellation transaction.
- **Gratuity not offered**
If DCC (Dynamic Currency Conversion) was triggered during a pre-authorization, the "Gratuity" flow was not triggered as intended.
- **Gratuity was not entered in merchant currency**
If a terminal was configured with DCC and gratuity, the extra amount in the gratuity flow was not offered in merchant currency as it should be, during a capture flow.
- **Incorrect initial amount shown during supplemental authorization**
If an authorization had been completed and a supplemental authorization was initiated, the suggested amount was the original amount instead of 0.
- **Incorrect total amount could be displayed in gratuity flow**
If the <Corr> button was used during the flow, the value for the "Total" field could be incorrect (not including the fee when relevant).
- **Old data on End of Day report**
If the terminal was rebooted, old transaction data (last transaction), from the previous End of Day report, was present on the new End of Day report.
- **PAN reject could cause crash**
If an ECR enabled terminal received a PAN reject from the ECR, the terminal could crash.

- **Pressing F1 when printer lid is open could cause temporary freeze**
If the F1 (left multi-function) key was pressed while the lid was open, it could cause a temporary freeze while waiting for a timer to end.
- **Send log not functional with IP routing**
The function send log did not work when communication was set to IP routing.
- **Text changed**
If terminal language was set to German or Finnish, transaction type values were not abbreviated correctly on the End of Day report.
- **Text changed**
Certain characters in the Finnish language did not print correctly.
- **Text changed**
If the DCC rate file was empty, the explanatory text on the printed report was not presented correctly.
- **The terminal could deactivate itself**
Under certain and infrequent circumstances, the terminal could deactivate itself due to errors in writing certain values to the internal memory.
- **Unable to enter long SSID, PSK or any GSM PIN**
If the SSID or PSK (WLAN configuration) was longer than 19 characters, the second input screen could not accept input. Neither could the GSM PIN screen.