

Solution for Financial Transactions Processing and Management of POS Terminal Network



ASHBURN
INTERNATIONAL

About ASHBURN International

ASHBURN International specializes in the provision of bank payment card, loyalty system solutions and e-commerce. The company was established in 1998 as a subsidiary of the holding company ASHBURN International Holdings Inc. for the purpose of providing IT solutions and outsourcing services to clients in the financial, commercial, telecommunications and service sectors. In 2003, the company became a member of the Penki Kontinentai group.

ASHBURN International established itself in the electronic payment and services market in 2002, when it developed an e-commerce system for the prepayment of bills, allowing mobile users to replenish their accounts in shopping centers. The first authorization projects of loyalty programs and payment cards marked with the brands of the international associations VISA International and MasterCard Worldwide were implemented in the same year.

Today, ASHBURN International primarily operates in the area of payment card authorization solutions, which includes the development and deployment of integrated and standalone POS (Point of Sale) solutions at different points of sale in Lithuania and other countries. Services include programming, certification and installation of hardware and software required for payment card authorization, checkout operator training, consulting for sellers and troubleshooting.

Software and hardware for POS terminals is certified and meets EMV standard requirements of VISA International and MasterCard Worldwide. Since 2007, on yearly basis the ASHBURN International authorization center is certified in accordance with the highest level of international requirements for payment card data security - PCI DSS Level 1. The company has certified channels for the transfer of bank card operations to the major commercial banks in Lithuania and their authorization centers.



Translink.iQ Services and Solutions

- Management of POS-terminals network;
- Implementation of card transactions in POS-terminals;
- Safe and operative transfer of card transactions for acquiring banks;
- Integration with external systems;
- Remote update of POS terminals software;
- Remote extension and modification POS-terminals functionality;
- Monitoring of POS terminals network;
- The ability to generate reports.

TransLink.iQ software is developed in accordance with the requirements of international companies VISA and MasterCard, and corresponds to EMV standard. Since 2007, the company PCI level 1 is certified on yearly basis.

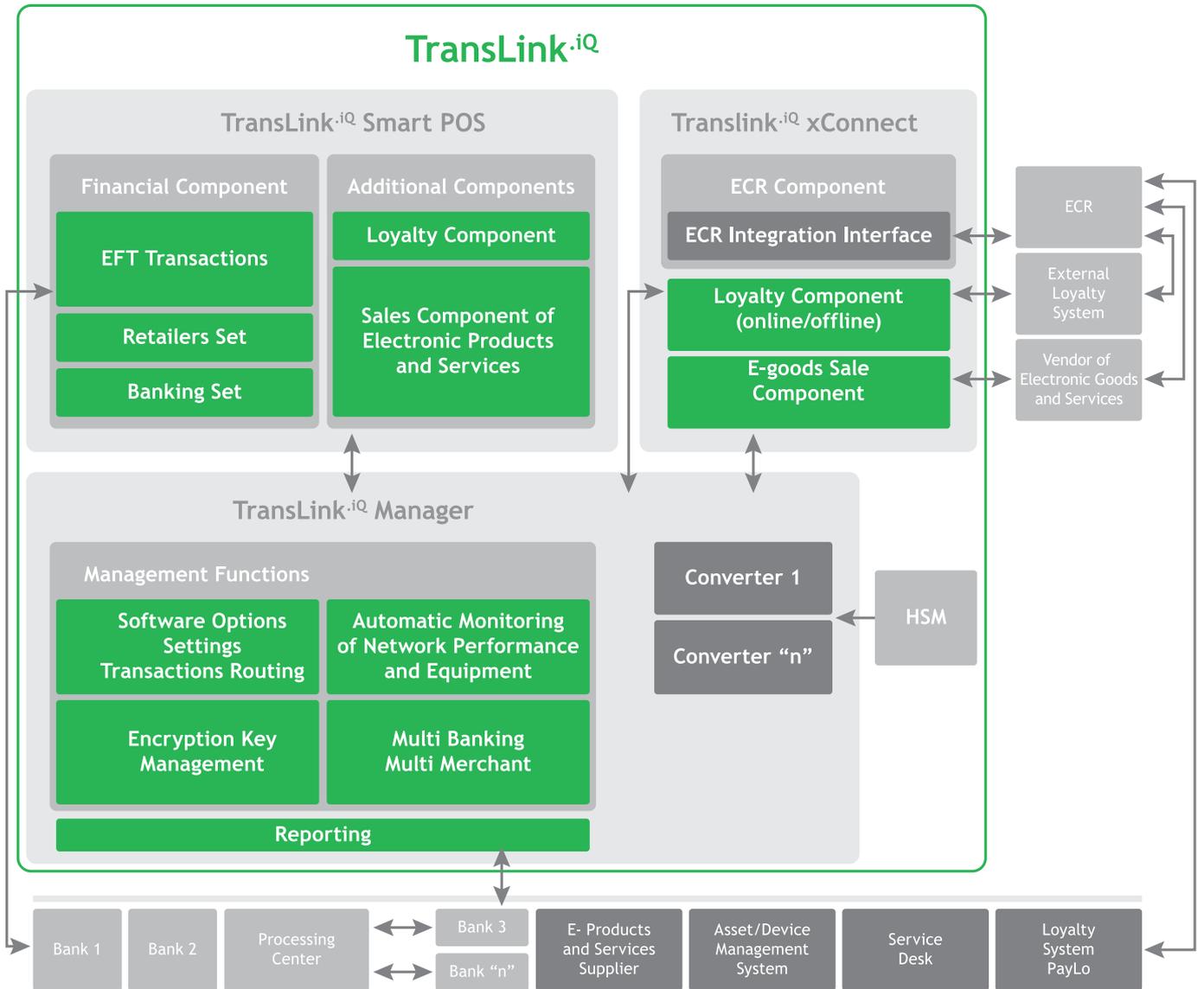
TransLink.iQ is developed and maintained by experts of ASHBURN International, who has years of experience in creating specialized software.

The Structure of TransLink.iQ

Modules

The TransLink.iQ software solution consists of the following software modules:

- **TransLink.iQ Smart POS:** certified software designed to accept payment cards in POS terminals. It allows acceptance of loyalty and other proprietary payment cards, ensures the sale of e-products and services as well as payment for them.
- **TransLink.iQ Manager:** a system designed to manage the network of POS terminals, accept, distribute and transfer payment card transactions as well as other non-financial transactions.
- **TransLink.iQ xConnect:** a connecting link that ensures POS terminal integration with ECR (electronic cash register), external loyalty systems and e-service providers.



TransLink.iQ Smart POS Software Module

TransLink.iQ Smart POS is a PA-DSS certified POS terminal software which consists of a financial component and two additional components: loyalty component and e-goods sale component.

Field of Application

TransLink.iQ Smart POS software allows processing of all electronic fund transfer (EFT) notifications received when making payments with the payment cards. TransLink.iQ Smart POS software can be used with POS terminals installed in bank divisions, shopping and service centers, HoReCa and gas stations; it allows carrying out all major payment card transactions:

Authorization, Pre-Authorization; Purchase - Card Present/Card Not Present; Purchase with Cashback; Sale Completion - Card Present/Card Not Present; Reversal; Refund; Cancellation; Balance inquiry; Cash in (Cash to card); Cash out.

TransLink.iQ Smart POS software supports additional non-financial transactions such as loyalty transactions.

Key Characteristics

TransLink.iQ Smart POS application was developed in accordance with the P2PE (Point to Point Encryption) standard. Compliance with the above standard proves that the software has the following characteristics:

- An exceptionally high level of security for a card holder's data. This is one of the key requirements of the international payment systems applied to card processing businesses and partly to merchants;
- The software enables reducing the costs of mandatory merchant verification and certification in accordance with the requirements of the PCI DSS Security Standard by up to 5 times;
- It enables merchants to reduce costs associated with the security of payment transactions performed with payment cards within their infrastructure, because in terms of architecture some features (e.g., management of data encryption keys) are part of the software solution provided by the bank, data processing center or service provider, which uses TransLink.iQ Smart POS software;
- The software enables performing payment card transactions processing in insecure networks, for example, on public web, since all data which is transferred is encrypted in a more secure manner. POS terminals' settings are updated in the context mode, thus the process does not interfere with the processing of payment card transactions using the terminal.

TransLink.iQ Smart POS Software Components

The *Financial component* is the main certified part of the TransLink.iQ Smart POS application. It responds to EFT notifications generated when processing payment cards. The component complies with the EMV standard and is PCI DSS (Payment Card Industry Payment Application Data Security Standard).

The *Loyalty component* allows supplementing the TransLink.iQ Smart POS application with features that ensure participation in loyalty programs without the need to modify the financial component of the certified software and in line with the needs of the merchant or bank. Depending on the terms and conditions of a loyalty program, its members could be holders of cards from a specific bank, users of specific payment systems, holders of specific types of payment cards or holders of loyalty cards of a specific merchant or group of merchants.

The loyalty component also allows creating complex loyalty programs unifying several different merchants (for example, merchants with their points of sale in the same shopping center, etc.). The operation of such loyalty programs is based on the possibility to collect loyalty points when purchasing goods or services from any of the points of sale. Members participating in the loyalty program accumulate points that can be used afterwards at any point of sale that is part of the loyalty program. Such cross-loyalty system allows managing payments at the point of sale, adding loyalty points and performing offsetting transactions between merchants.

The *E-goods sale component* enables using POS terminals installed at points of sale and services for additional sale of e-products and services, for example:

- Replenishment (top-up) of mobile phone accounts;
- Prepayment services;
- Payment of utilities and other charges;

- Purchase of insurance policies;
- Other services related to the sale of e-products and services.

TransLink.iQ Manager Module

TransLink.iQ Manager is a centralized multi-functional module dedicated for remote POS terminal network management. TransLink.iQ Manager is intended to be used by card payment acquiring organizations regardless of number of banks acquirers served or size of POS terminals network.

Field of Application

The TransLink.iQ Manager software module has the following functionalities:

- Remote management of the POS terminal network;
- Accepting, distributing and transferring financial and non-financial transactions to acquiring banks, processing or data processing centers;
- Integration with external systems;
- Monitoring of the POS terminal network and transaction flows;
- Organizing and monitoring of the “close of day” procedure in POS terminal network in optimal way;
- Maintaining the viability of network service tools and the system;
- Ensuring other functionalities associated with the monitoring, maintenance and support of the system’s operation.

Key Characteristics

TransLink.iQ Manager software monitors both the status of the network devices and transaction flows.

All settings can be modified via the user interface directly on the TransLink.iQ Manager platform, via the third-party software or HTTP API. Modifications take effect as soon as the connection with remote POS terminals is established.

TransLink.iQ Manager requires a connection for exchanging data and commands with TransLink.iQ Smart POS, which is ensured using the P2PE encryption standard. The “close of day” procedure has its own defined logics and closes the day at specified intervals, thereby efficiently distributing the volume of transferred data over specific time intervals.

Structure

TransLink.iQ Manager software module includes:

- TMS (Terminal Management System) functions;
- FMS (Financial Management Service) functions;
- Monitoring functions:
 - Remote equipment performance control;
 - Terminal network workload and transaction flow control (for example, management of daily closing procedures of various merchants and banks);
 - Automatic device clustering and monitoring of statistical data of cluster statuses;
 - Terminal network monitoring without human involvement (zero configuration);
 - Controlling system viability, connection problems, system errors, etc.;
 - Notification about any deviations (anomalies) observed.
- Reporting functions:
 - TransLink.iQ Manager software can generate a variety of reports, which allows the provision of information to banks or merchants depending on their financial reporting requirements, organization and the intensity of card accepting business.
 - It is also possible to obtain analytical information that helps to assess the functional efficiency of a POS terminal, POS terminal network or merchant. The module allows the diagnosis of the operation of equipment and automatic sending of information to banks.

- Standard report templates have been prepared and realized; if necessary, it is possible to request additional reports, both technical and financial.
- Data conversion functions:
 - Conversion of POS terminal transaction data into the format required by the bank for transferring the data to the appropriate bank or data processing center;
 - Ensuring the number of converters depending on the number of banks and their host solutions;
 - Supporting special converters for additional services in the POS terminal used to maintain a connection with external software systems.
- Safety key management functions.

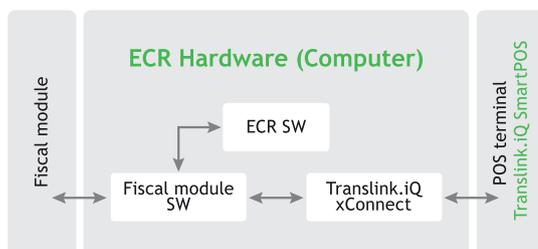
TransLink.iQ xConnect Module

The TransLink.iQ xConnect integration module is designed to ensure the integration of POS terminals with ECRs, as well as to ensure connection with external systems (loyalty systems and other systems (e.g. e-goods sale system)).

Field of Application

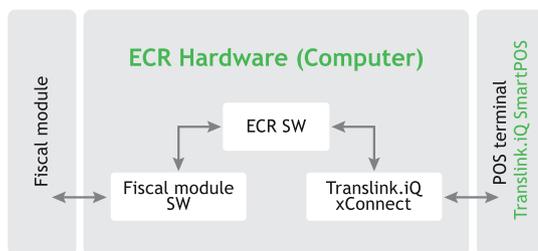
TransLink.iQ xConnect allows:

- Integrating a POS terminal (in this case, PIN PAD) with ECR, thereby ensuring the following features:
 - The opportunity for the owner of the POS terminal network to reduce costs of card processing solutions;
 - Reducing customer service time;
 - Reducing the likelihood of checkout operator errors when manually entering data into the POS terminal;
 - Linking fiscal transactions data in ECR to a card payment transaction.
- Ensuring a connection to external loyalty systems, which allows obtaining information about a customer's (card holder's) participation in the loyalty program, their current number of points and premiums, applied discounts, etc. Moreover, the opportunity to use the bank card for participating in loyalty programs by replacing the card holder's data with an equivalent personal identifier (hash) has been introduced.
- Ensuring connectivity to external systems of e-service, payment for insurance policies, utilities and other services.



Type 1 integration: integration of the ECR with the POS terminal via the fiscal module software.

This is a standard connection method that reduces the number of versions of integration of the ECRs and the POS terminal.



Type 2 integration: direct integration of the ECR with the POS terminal via the software of the ECR.

This integration is the most convenient integration method that allows full control of the POS terminal's software directly via the software of the ECR. Payment cards acceptance is ergonomically integrated with the software interface of the ECR. This type of integration makes it possible to accept loyalty cards and social card services, while ensuring their participation in specialized loyalty programs and expanding the sale of e-products and services.

Additional Functionalities of TransLink.iQ

Multi Banking

Makes it possible to distribute transactions and transfer data to different acquiring banks, thereby providing merchants with the technical possibility to work with several banks simultaneously.

Multi Merchant

Allows several different merchants to use one physical POS terminal at the same time. The solution helps to save costs associated with the purchase/rental of a POS terminal as well as to ensure payment card processing services.

Payment of Fees and Charges

Solution enables the semi-automated collection of fees (insurance premiums, service fees, fines etc.) by use of POS terminals and barcode scanners. Automated reports with detailed data about accepted payments are generated and provided to merchants on daily basis. By use of Multi-Merchant and Multi-Banking functionalities accepted payments are routed directly to different service providers accounts in different banks. Optionally service fees applied to the card holder can be separated into an individual transaction and routed to beneficiaries accordingly.

Self-registration of salesmen accepting card payments

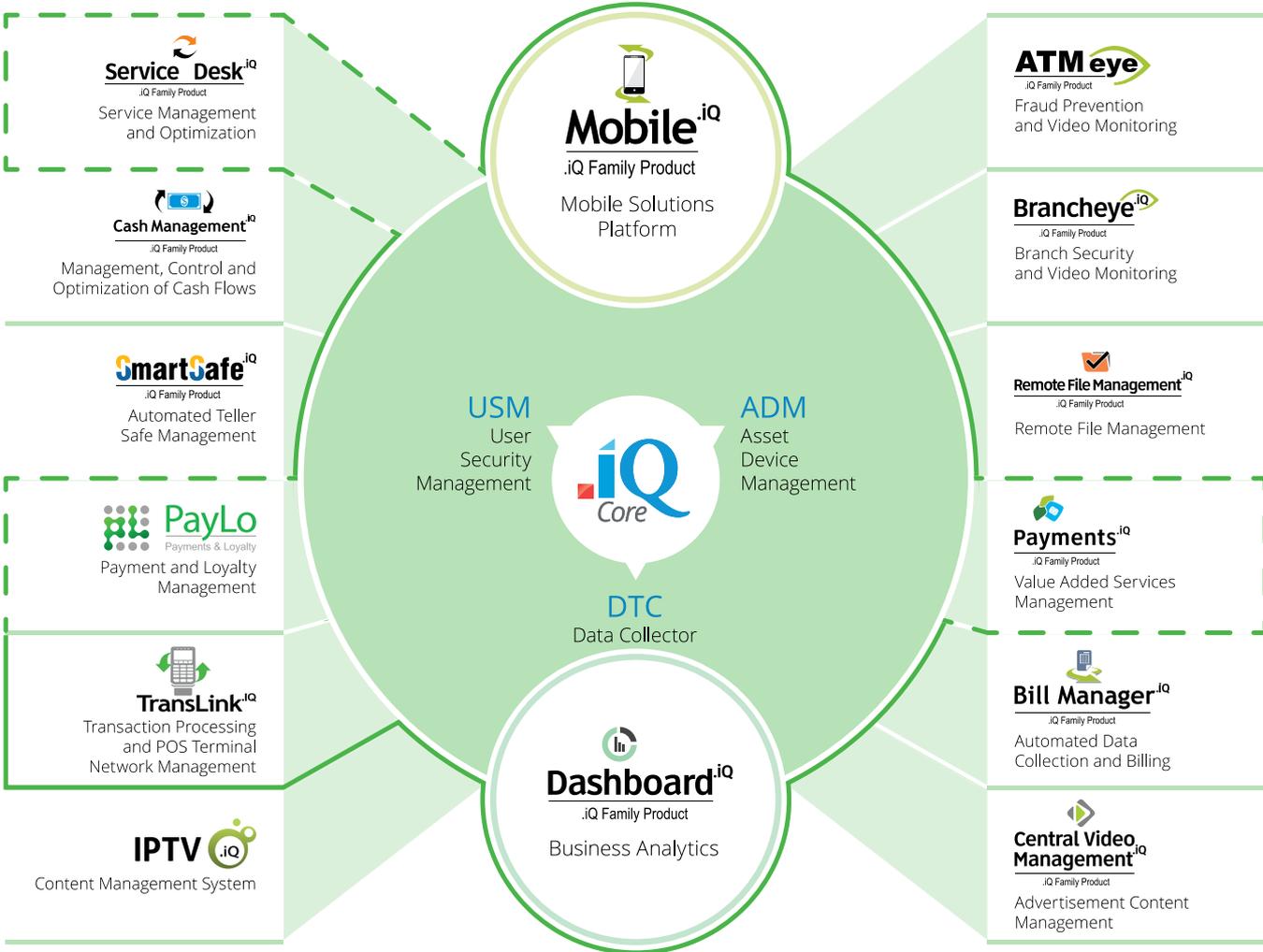
Salesmen are enabled to register themselves, by use of ID cards or personal codes, before accepting card payments. The data about accepted payments and their split by salesmen is provided to the merchants in form of daily reports. Merchants are enabled to use this data to motivate their salesmen.

Acceptance of Non-bank Cards

Possibility to accept non-bank payment cards' transactions and loyalty cards' transactions through POS terminals, route and deliver the transactions to payment system or loyalty system processing hosts (e.g. „PayLo“ system).

Merchant Logos or Advertising Information on POS Terminal Receipts

Allows placement of logos/trademarks/other relevant information on POS terminal screen/receipts. Provides opportunities for managing the process of information publishing (period of publishing, content updates, etc.).





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