New approach to nationwide POS terminal network management in Uzbekistan

The project for managing a network of more than 220,000 POS terminals was implemented by ASHBURN International specialists for the Common Republican Processing center of Uzbekistan.

About the client

UZCARD

The Republican Processing center of Uzbekistan (EOPC) is an interbank processing center that acts as an intermediary, combining the country's banks and international payment systems. EOPC is an operator for the Uzcard national payment system and services over 17 million plastic cards of this system, provides various financial and processing services for 30 banks of Uzbekistan and a number of payment systems (PayMe, Click, Uzpaynet et al.). Today, Uzcard users can pay for goods and services using any of the 250,000+ POS-terminals, more than 6 800 ATMs and information kiosks.

Since 2017, the company has been providing acquiring services in Uzbekistan for the Mastercard international payment system.

Project Goals

Uzbekistan card payments market has recently been developing and expanding at an extraordinary speed. There are over 17 million Uzcard national payment system cards in the country. International payment cards such as Mastercard, UnionPay and others are also being serviced. There is a need for a modern and reliable software solution to handle such a large transaction flow.

With the increase in the number of non-cash payments, EOPC needed a functionally flexible, fast and secure solution for POS terminal network management. The solution had to ensure the smooth operation of the entire acquiring eco-system, guarantee a high level of data transfer security and work with equipment from various manufacturers.

The reasons why
ASHBURN International

Most POS terminal network management solutions did not satisfy every all EOPC requirements. The company needed technological solution, which would be easy to customize to specific organization requests.

Additionally other TransLink.iQ features helped in making the choice, such as:

• ability to manage the entire terminal fleet in one system (including the ability to remotely install updates);

• flexibility in expanding POS terminal functionality;

• multi-vendor functionality;

• the level of security the solution provides.

EOPC operates a huge fleet of POS terminals, that's why the organization needed to find a solution provider who could handle such a large software implementation and migration project. One of the leading factors for the decision of EOPC was that ASHBURN International is one of the leading banking solutions providers in the Central Asian region.

" The TransLink.iQ solution best fits in accordance with our business development strategy. It is especially important to us that with such a large flow of transactions, the stability and security of the system is guaranteed. "

- Akhror Makhmudov, EOPC General Director

ASHBURN International approaches each project individually paying great attention to every detail in order to provide a solution that best fits the client's needs. During the preparation stage, there were many tests and system integration experiments, which helped find the most optimal solution for the Uzbekistan market.

The implemented solution

The customization and implementation of TransLink.iQ platform into the EOPC infrastructure was made in several stages. The first stage was information gathering.

In order to install and configure the system in compliance with all the requirements and wishes of the customer, ASHBURN International company specialists visited the client and collected all the necessary information.

Important questions before implementing the TransLink.iQ solution in EOPC

1. Transaction Routing
It is very important to know how many hosts are a part of the acquirer ecosystem and what transaction routing algorithms need to be implemented. In the case of the EOPC, transactions are delivered to two different hosts: one host works with the national payment system Uzcard, the second - with international payment systems Visa and Mastercard. For each host a separate connection protocol has been implemented.

2. Security
EOPC must use an HSM (hardware security module) to comply with international security standards. Taking into account all the features of the required system, ASHBURN International specialists gave hardware and environment recommendations (hardware specifications (including the HSM) and support requirements).

3. Server side
The servers where the system is installed can be physically placed on the acquirer site or at ASHBURN International.

EOPC chose to place the servers at their own locations inside of their personal environment. ASHBURN International specialists provided a list of software and hardware requirements and recommendations.

4. POS terminal network management
It is important to decide whether terminal configuration should be centralized or decentralized.
As a rule, all data converges in a single center, where terminals are configured. In this particular case, to simplify terminal management, it was decided to implement the TransLink.iQ solution with an external system and decentralize terminal configuration.

5. POS terminal functionality
Traditionally, the payment terminal is a means of accepting cashless payments, however they are not limited to just this functionality. Depending on the needs of financial organizations, POS terminals can have a multitude of different features, such as checking account balance, mini bank statements, refunds, changing PIN codes and others.

The software deployment stage was then immediately started after a project roadmap was created and approved.

A test system was first launched to configure the entire package of features.

In order to not make significant changes to the already existing infrastructure, EOPC chose to decentralize POS terminal configuration. Rights needed to be delegated to the banks so they could initialize terminals from their own systems. For this, the existing TransLink.iQ API was used to connect to external systems, in this case to the systems of EOPC. The API allowed banks to exchange infrastructure data with the TransLink.iQ Manager module. The configuration of this of this connection with banks was done in parallel with the overall system implementation.

After configuring the systems functionality, a pilot project was launched.

Upon completing the pilot project, the software platform began functioning in real time. ASHBURN International then switched to the next step – expanding the functionality of the solution according to the wishes of the customer.

The list of expanded POS terminal functionality included such features as: the ability to change Uzcard pin code, contactless payments at terminals, which support this feature and several other features. Additional POS-terminals functionality was implemented to allow using them as cash registers, which work not only with card payments but also with cash payments. This option allows merchants to use POS-terminals as a full online cash register, while complying with tax legislation requirements: forming fiscal documents, transferring them online to the STC, printing fiscal documents.

In addition, the TransLink.iQ was made to support national and international payment systems such as Visa, Mastercard, Mir and others.

Separately, we note that TransLink.iQ provides for the opportunity to use all its functions on terminals of different manufacturers within a single management system.

Project implementation benefits

The Common Republican Processing Center of Uzbekistan acquired 220,000 licenses for POS terminals, which belong to 28 different banks of Uzbekistan. It is expected that during the upcoming years more terminal licenses will be required to connect even more POS terminals.

Over time, the POS-terminal fleet will be updated, new models will be added, including those from other manufacturers, however, the POS terminal network will continue being administered by this single management system.

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One of the key advantages of TransLink.iQ is that this solution is an integrated system that allows POS-terminals to accept cards of all payment systems existing in Uzbekistan (UZCARD, Mastercard, VISA, Mir, etc.). This functionality simplifies the work not only of the Common Republican Processing Center of Uzbekistan, but also of merchants that can accept payment cards of different systems at one terminal.

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- Zhoržas Šarafanovičius, Executive Director of ASHBURN International.
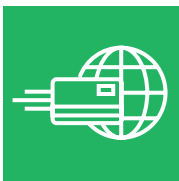
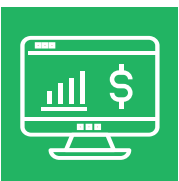Extend POS terminal functionality and develop acquiring infrastructure

Comprehensive monitoring and analytics tools (analytical reporting)

Streamline POS terminal installation workflowsand reduce costs

Ensure a high level of system availability when processing a large amount of data and rapidly recover system functionality

Increase the profitability of the acquiring network

Automate work processes while ensuring the necessary level of security

ASHBURN International

ASHBURN International, a member of the Penki Kontinentai group of companies, develops specialized solutions for managing POS terminal networks, provides outsourcing services for delivering transactions to processing centers, credit and financial organizations, retailers and others organizations. ASHBURN International is annually certified in accordance with the PCI DSS level 1 and Visa PIN Security Program.

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