

# «WEB» EXTENSION SYSTEM

*Brief  
description*

## **WebExtension**

The system provides the extension of the feature of ATM with operations of e-banking system and / or back office of the bank (hereinafter: the bank gateway). In the standard package the following features are implemented:

- Card2Card – transfer from one card to another(or account)
- Pending Transactions – unconfirmed transactions
- Current Month Statement – report on transactions for the current month
- Previous Month Statement –report on transaction for previous month
- Print List – report printout

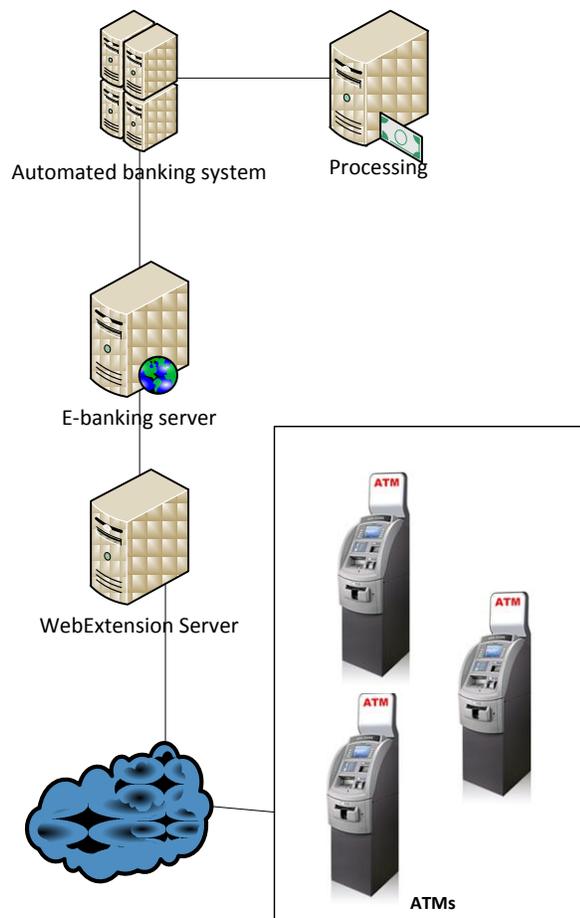
However in case of providing the appropriate interface of interaction with the banking gateway, the system is able to provide the implementation of operations specific to a particular bank, such as:

- Repayment of loans
- Utility payments
- Payment for various services to fixed accounts (SRTSI penalties, all kinds of payments)
- Requests to obtain small loans
- Filling out forms
- Subscription for services
- ...

Each final operation is a set of successively filled-out forms, where each completed form may influence on the further development of the scenario.

## **System's architecture**

The proposed solution is a client-server system. The client part is installed on the ATM, and provides the opening of web-client where the full functionality of the system is situated. The server part is a generator of graphic interface's form and the link between the proposed system and the gateway of the bank.



### System's privileges

The system is designed to improve the efficiency of ATM usage and thereby to reduce the flow of visitors to the branch of the bank. Mechanism of authentication used in the system allows one to verify the client and does not increase the vulnerability of a system.

Here is the not complete list of privileges of the system:

- Lack of need to create / change the configuration of the ATM for each type of operation
- Ability to create tree-like scenarios for the operation implementation, when each step of the client can change the future course of operations
- The ability to create specific to this bank operations to improve competitiveness
- Server module of platform is independent and can be installed both on Windows and on UNIX platform
- The proposed solution allows us to provide customers a full range of services 24 / 7
- Does not require from the client any additional means of authentication, such as additional passwords, secure token-s, etc.

### Description of the standard functioning

The browser of the ATM sends login\_atm and gets all the encrypted values for the following queries. If the login is successful, then the available services for WebExt 1. appear on the screen

- Card to card transfer
- Not billed transactions
- Current month transactions
- Previous month transactions
- Print transactions list

The client chooses one of them. For example 'Card to card transfer'. Two input fields appear: the card number, to whose account money should be transferred and the amount. The customer clicks 'Next' and calls the remote procedure 'validate' with the input data and reference values which are received at login.

The data of the user appear. The client clicks 'Next' and remote procedure 'Submit' is called. If the transfer is successful, there is a check with transaction data, and a message to the ATM by using the status bar on the browser is sent.

If the client chose 'Not billed transaction', 'Get' request and reference values received at login are sent by 'pending transactions' method. The list of "Outstanding Transaction" comes in the response. Here all those operations are seen the amounts of which are already debited from card account, but are not yet approved by the Bank.

The client can return to the previous page and choose 'Current month transactions' or 'Previous month transactions'. Then 'Statement body' request is sent. Again by 'Get' method month, year and reference values are sent. In the response a card account statement comes. Here all the operations and commissions paid by the month, or extraction of the previous month are seen.

If the client chose 'Print transactions list', then menu with three buttons appear:

- Not billed transactions
- Current month transactions
- Previous month transactions

The client chooses one of them. After which the list of the appropriate transactions are displayed and printed. In that case the ATM should have A4 printer.

The messages generated by the client are sent to the Web-extension system, using JSONRPC mechanism. All the messages are available only after positive answer to the message login ATM is received.