

GENESIS BLOCK
IT challenge for your business

SW components & Digital Bank architecture

About Us

Since 2010, Genesis Block has been developing software, implementing payment systems, software and web solutions for e-commerce and blockchain solutions for business. We are one of the leaders in the Russian market of software development for electronic payment systems and payment terminals for self-service, processing and acquiring.



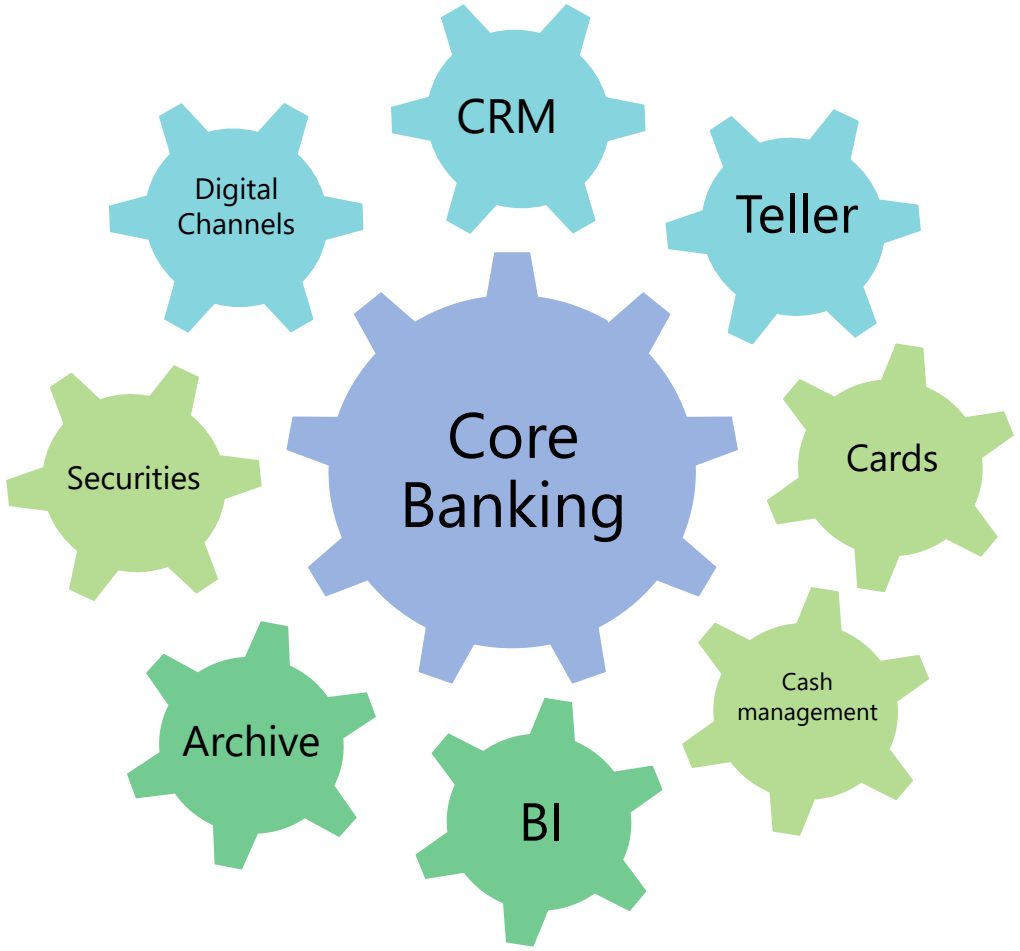
The company's software solution is used in more than 20,000 self-service payment terminals, pos-terminals and smartphones in Russia, Saudi Arabia, the United Arab Emirates, Spain, and Turkmenistan.

Since 2016, we have been engaged in R&D in the field of blockchain technologies and provide services in the field of consulting and development of blockchain projects.



Our partners and clients are Payment systems, Housing and communal services, Banks, Telecommunication companies, Blockchain Projects, Service providers. Wherever it is necessary to implement high-speed, high-quality and reliable systems for processing and accepting payments, we offer the most profitable and reliable products.

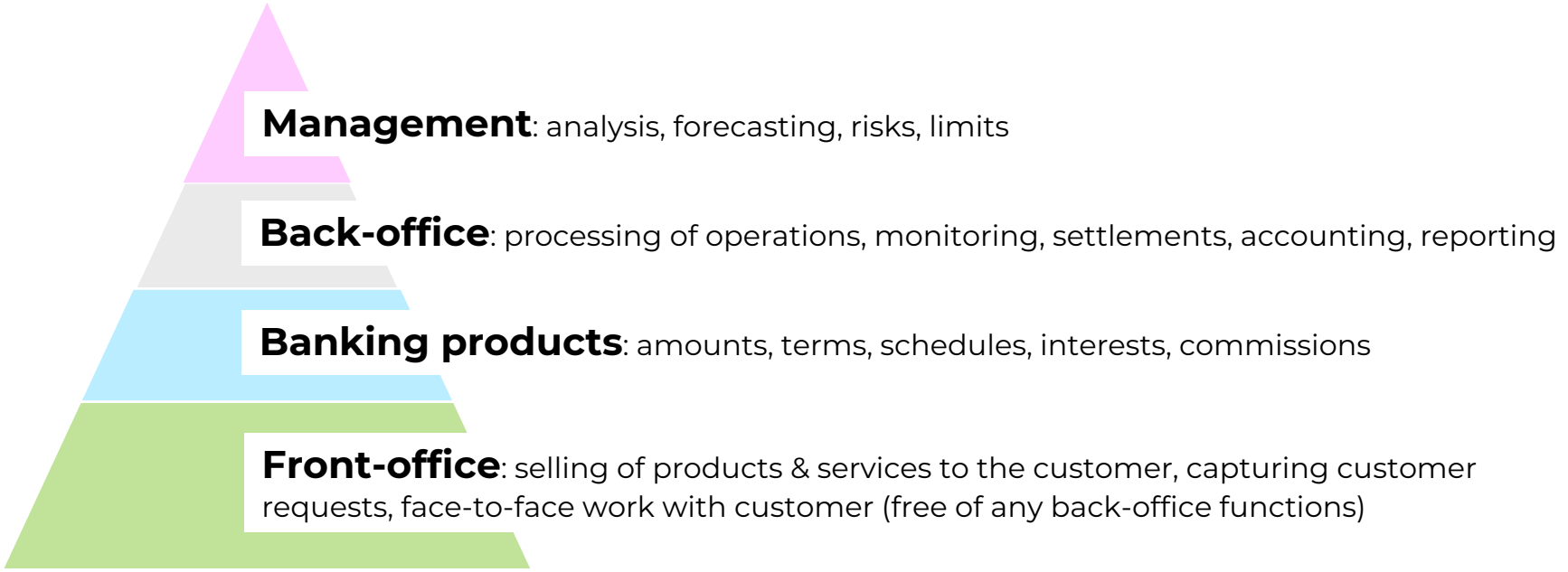
Genesis Block’s portfolio of banking products



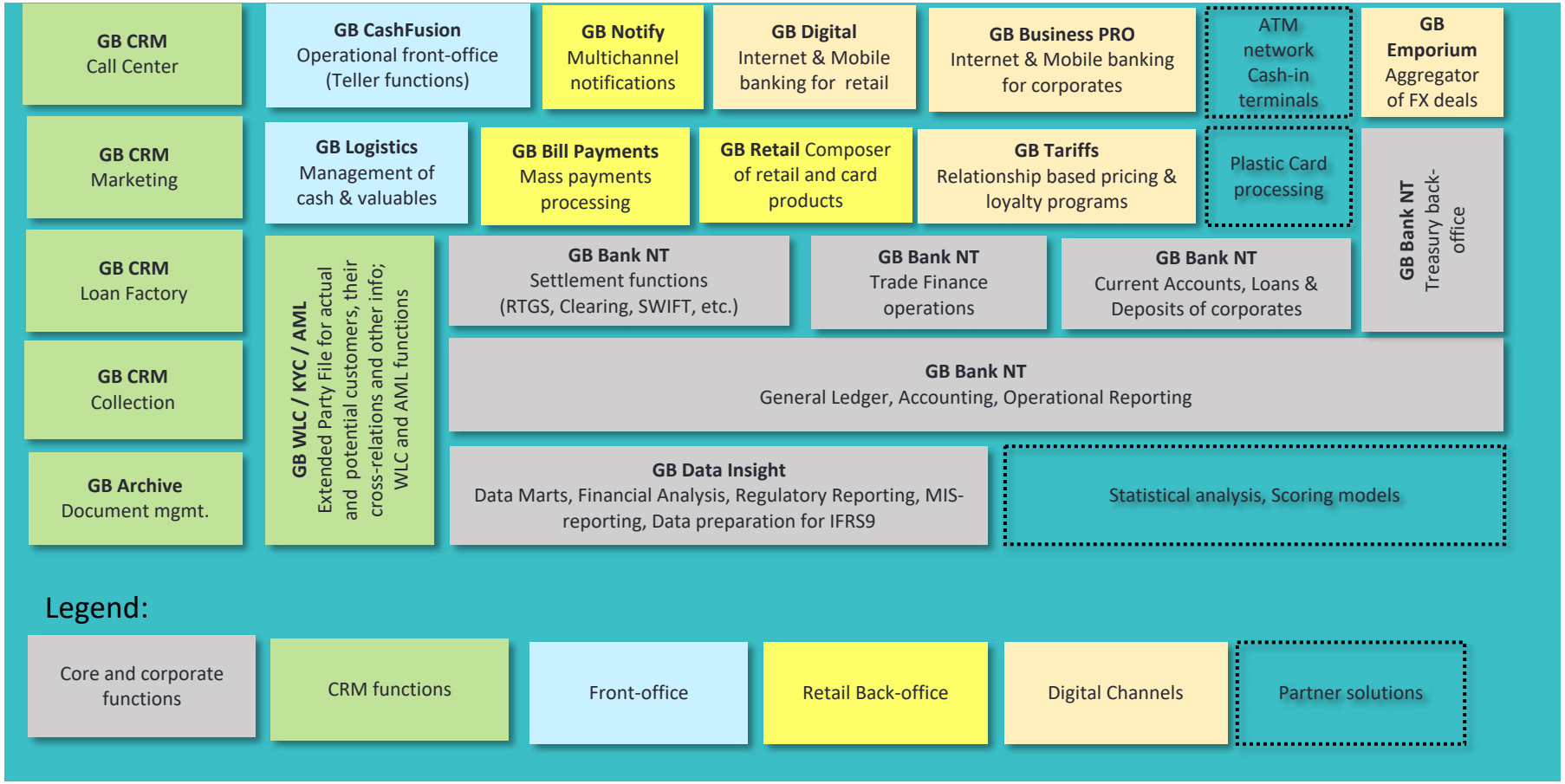
Our products cover all business areas of a modern universal bank

Componentized approach to functional architecture

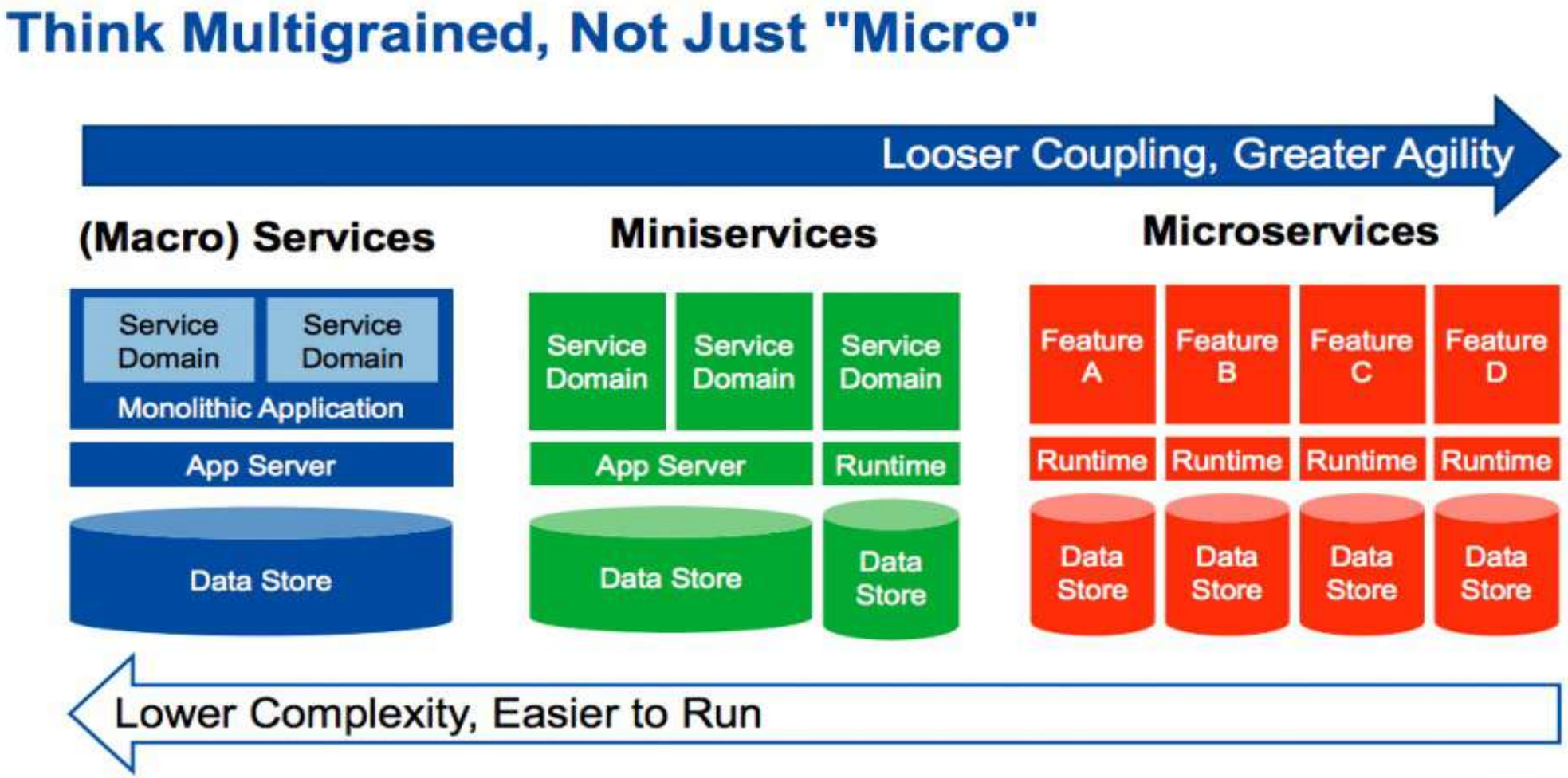
- All the elements of IT-infrastructure are split into layers
- Each layer has it’s own explicitly defined functions
- Each layer has to be developed by programming tools which are optimal exactly for this layer
- Architectural layers and separate components interacts with each other on a base of SOA-standards



Functional coverage of Genesis Block solutions for CBS and banking



We develop our solutions following the mainstream in architecture



© 2018 Gartner, Inc. and/or its affiliates. All rights reserved.

Gartner

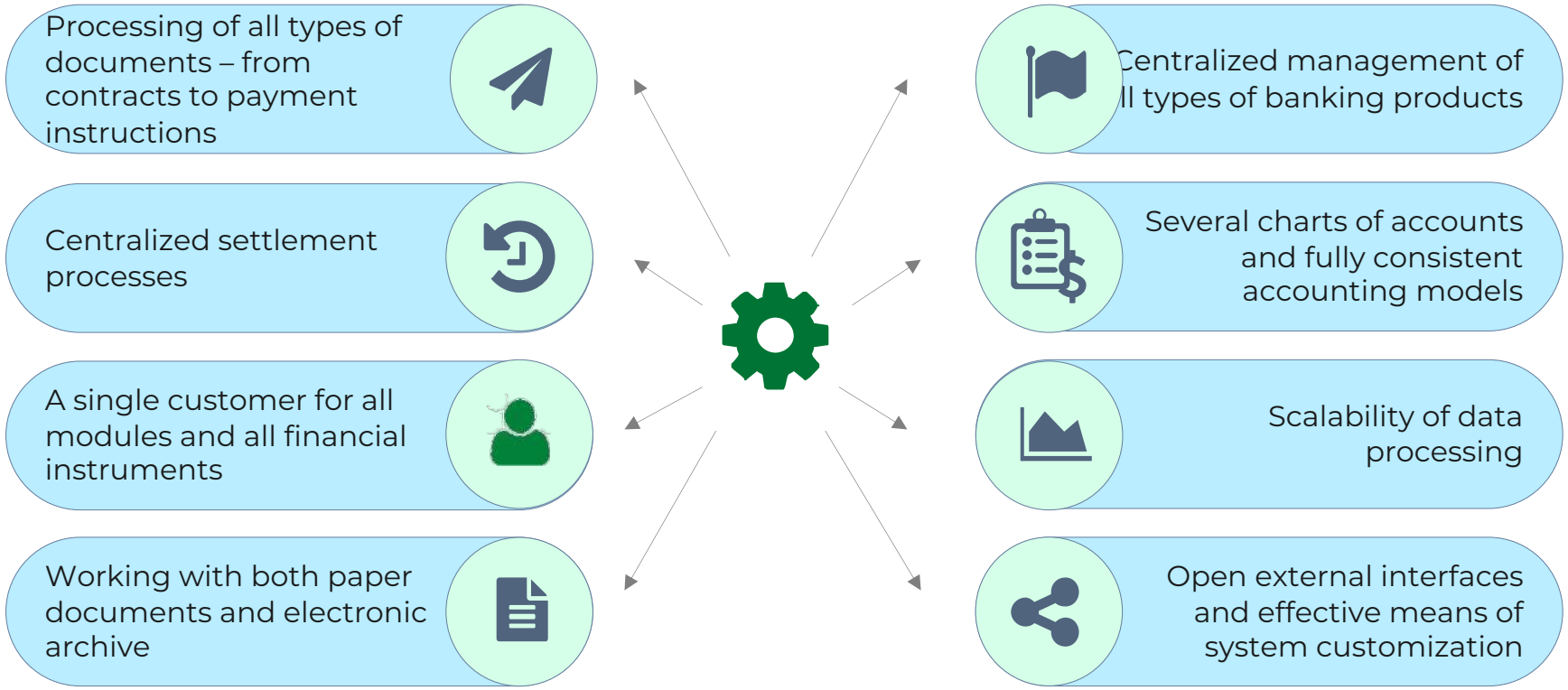
Main features of Genesis Block banking products

- All the components of banking IT-infrastructure are split into layers
- Each layer has it's own explicitly defined functions
- Each layer is developed by programming tools which are optimal exactly for this layer
- Architectural layers and separate components interacts with each other on a base of SOA-standards
- Front-office and Back-office functions are strictly separated but tightly integrated to each other
- All the customers and prospects of the bank are covered in a single centralized KYC file enriched with a lot of additional information
- Unified and flexible front-office is developed on a base of BPM-engine and integrated with banking equipment
- This provides a possibility for easy modification of front-office business-processes for customer service and bulk processing
- A composer of banking products and tariffs with possibility of flexible tuning of calculation algorithms and building of combined products
- Centralized settlement processes with auto-generation of all the documents necessary (payment orders, settlement instructions, etc.)
- Support of multiple charts of accounts for different layers of accounting (internal for analysis, external for regulator)
- On-line generation of accounting entries for both analytical and synthetic accounts; flexible set up of accounting rules
- Powerful mechanism of data-marts used for the provision of regulatory reports as well as for the financial analysis of bank performance; rich GUI tools in presentational layer of analysis & reporting subsystem
- High performance of a system, linear scalability of data processing
- Centralized multi-tier security system for access control and audit of operations
- Full openness of external interfaces

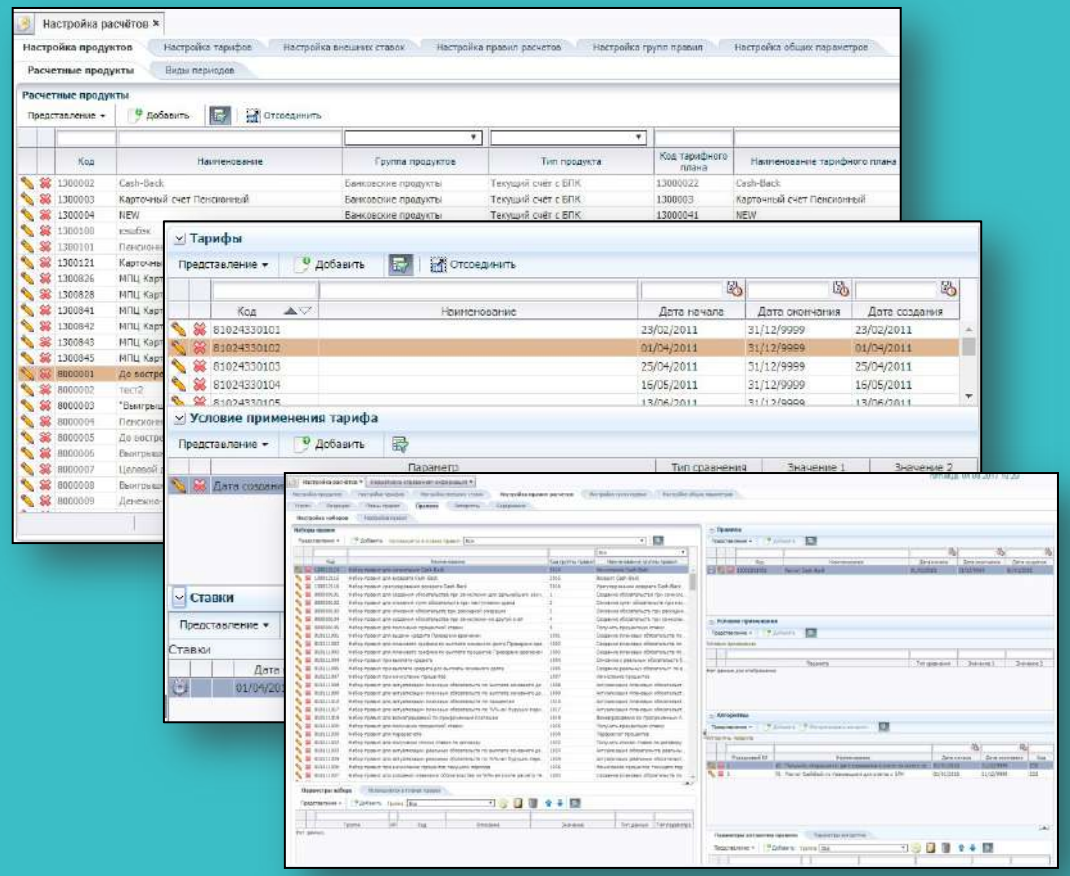
GB Bank NT: Summary of Core functionality



GB Bank NT: Main Principles of the Solution

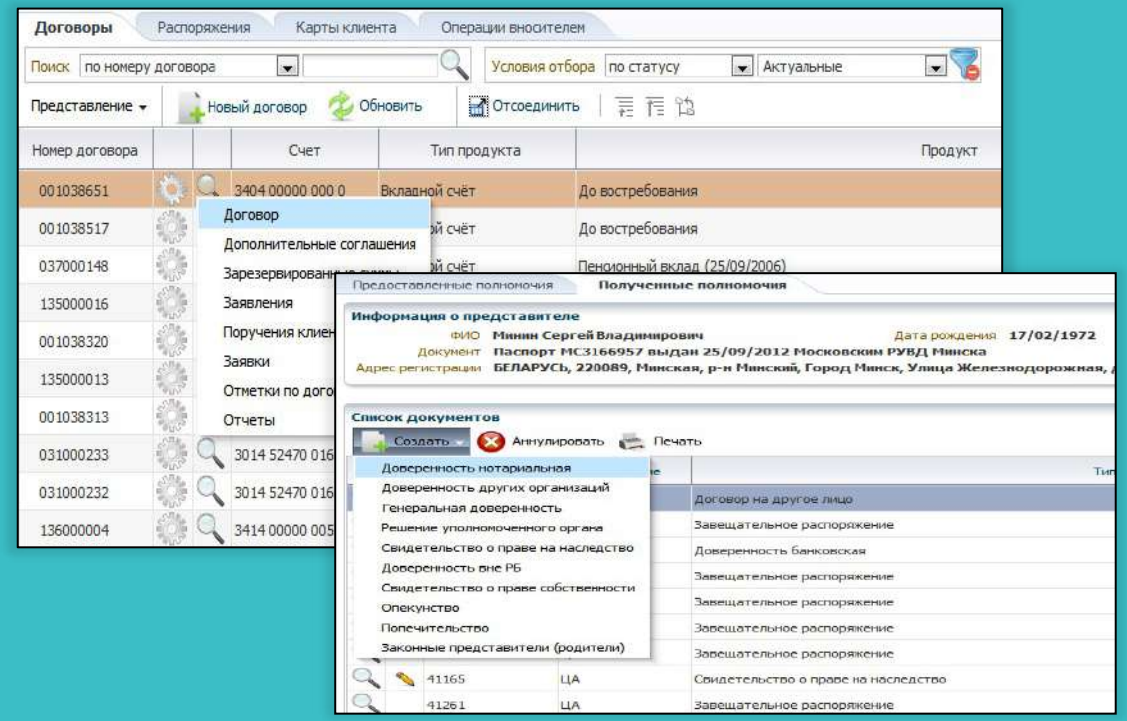


GB Bank NT: Centralized set up of all banking products



- ✓ Flexible tariffs (interests, fees & charges could be set up as necessary for each particular products)
- ✓ All necessary actions, events, operations, and processes associated with a product also could be set up
- ✓ All the documents to be generated during product life cycle
- ✓ Set up of all accounting models supporting product life cycle
- ✓ Availability of products in different channels
- ✓ Flexible tuning of calculation algorithms of a product (via the selection from a wide library supplied which could be extended as well)

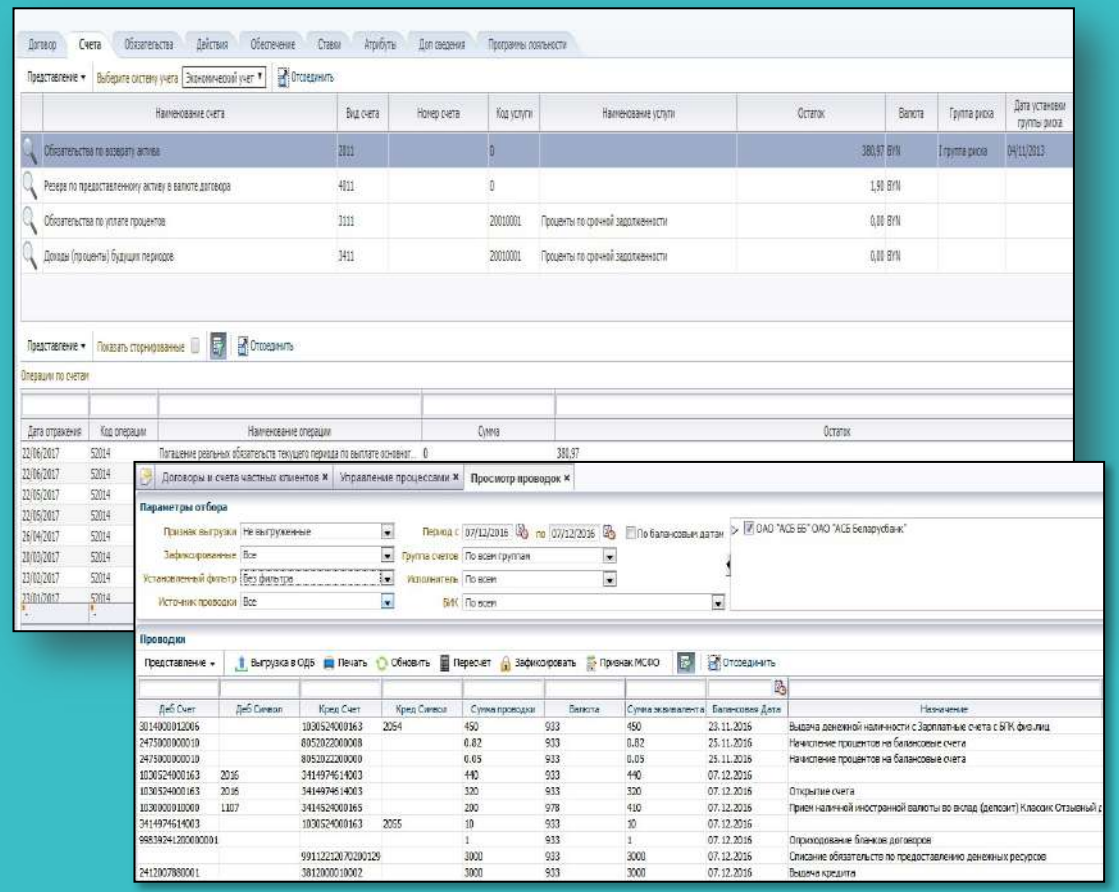
GB Bank NT: Automatic generation of all types of documents necessary



Including:

- ✓ Contracts
- ✓ Applications
- ✓ Additional Agreements
- ✓ Standing Orders
- ✓ Payment instructions
- ✓ Power of Attorneys
- ✓ Etc.

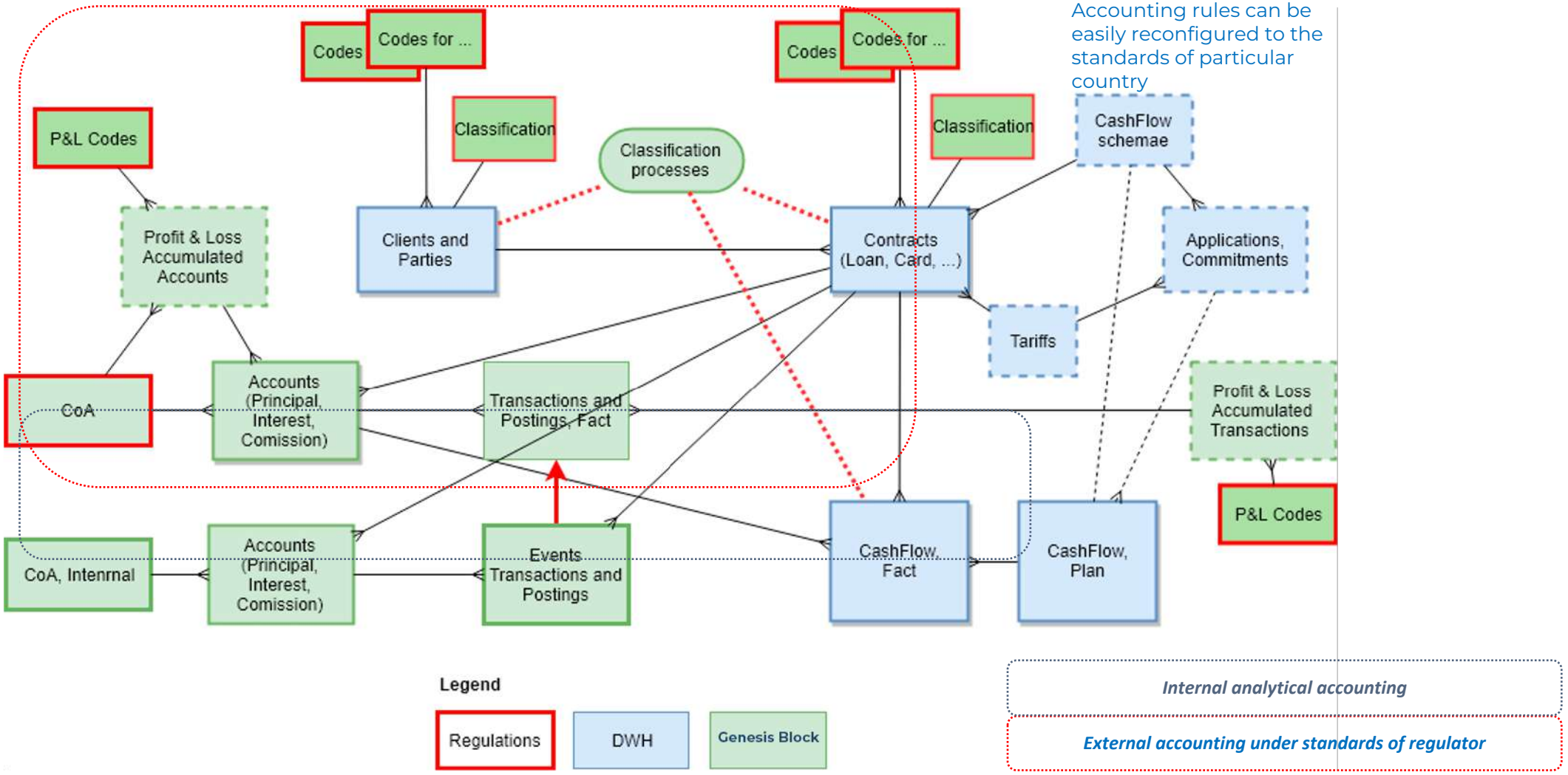
GB Bank NT: Powerful mechanism for automated accounting



Including:

- Two layers of accounting
  - Internal accounting for MIS purposes
  - Official accounting under the rules prescribed by National Bank
  - Internal accounting are automatically aggregated into official one
- Powerful means for the set up of accounts and accounting entries when creating new banking products
- On-line generation of all accounting entries to be fixed in parallel on internal (analytical) and external (official) accounts
- Auto-generation of both electronic documents and hard copies thereof

GB Bank NT: General Ledger and Architecture of the Accounting



GB Bank NT: Operational reporting

The supply of GB Bank NT includes a wide range of operational reports to be used in everyday work of the bank. Each of these reports could be varied:

- By actual dates (range of dates) of operations (this is quite important for lending products)
- By posting dates (x of dates) of operations
- All the reports could be generated at any moment – upon request of a user

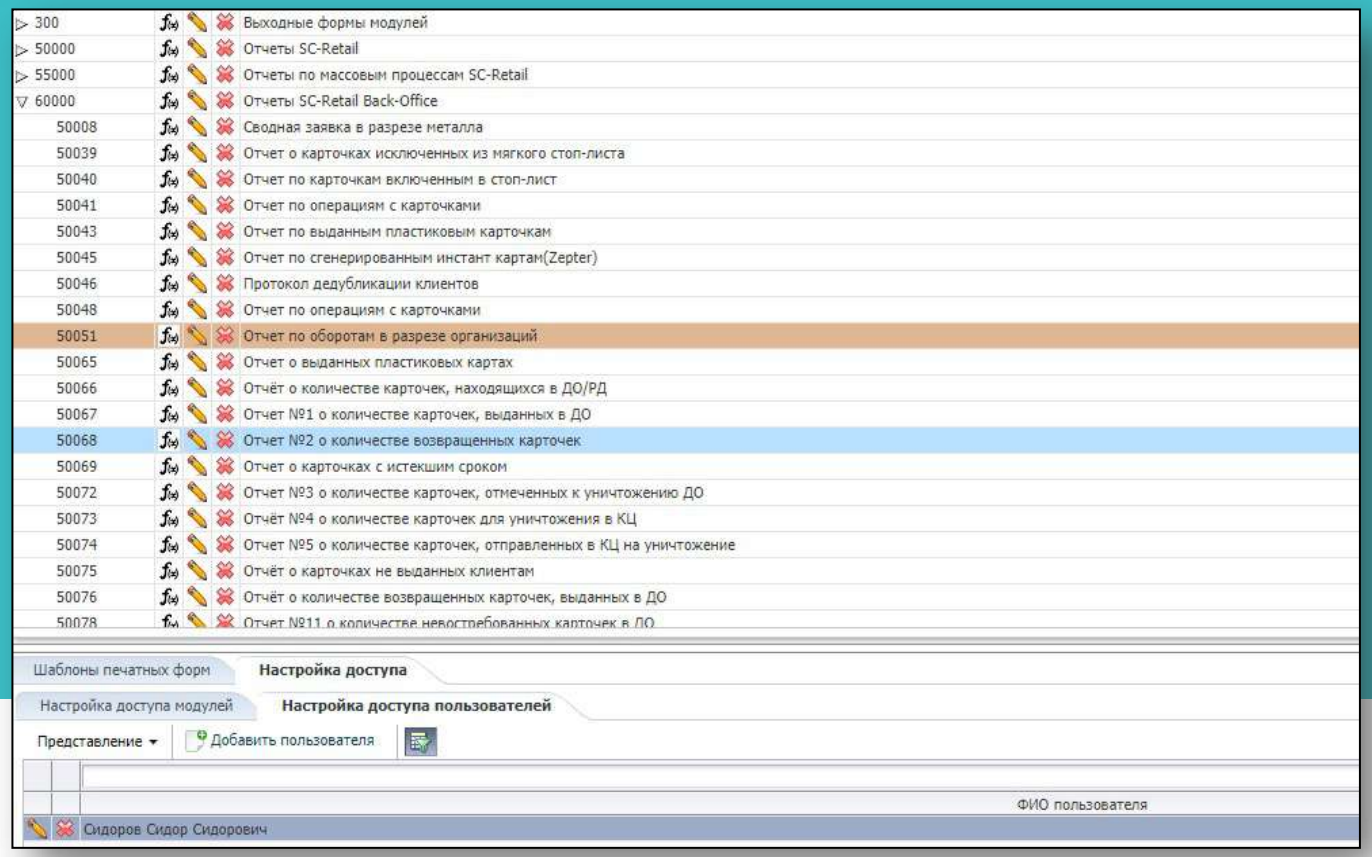
But the main set of reports (including all regulatory ones) will be generated by a separate subsystem – GB Data Insight (see below)

The list of reports includes:

- ✓ The snapshot of General Ledger of the bank
- ✓ Account Statements
- ✓ End of Day documents
- ✓ Various checklists
- ✓ Registries on Contracts
- ✓ Payment progress reports
- ✓ Repayment schedules



GB Bank NT: Security, Access Rights and Audit



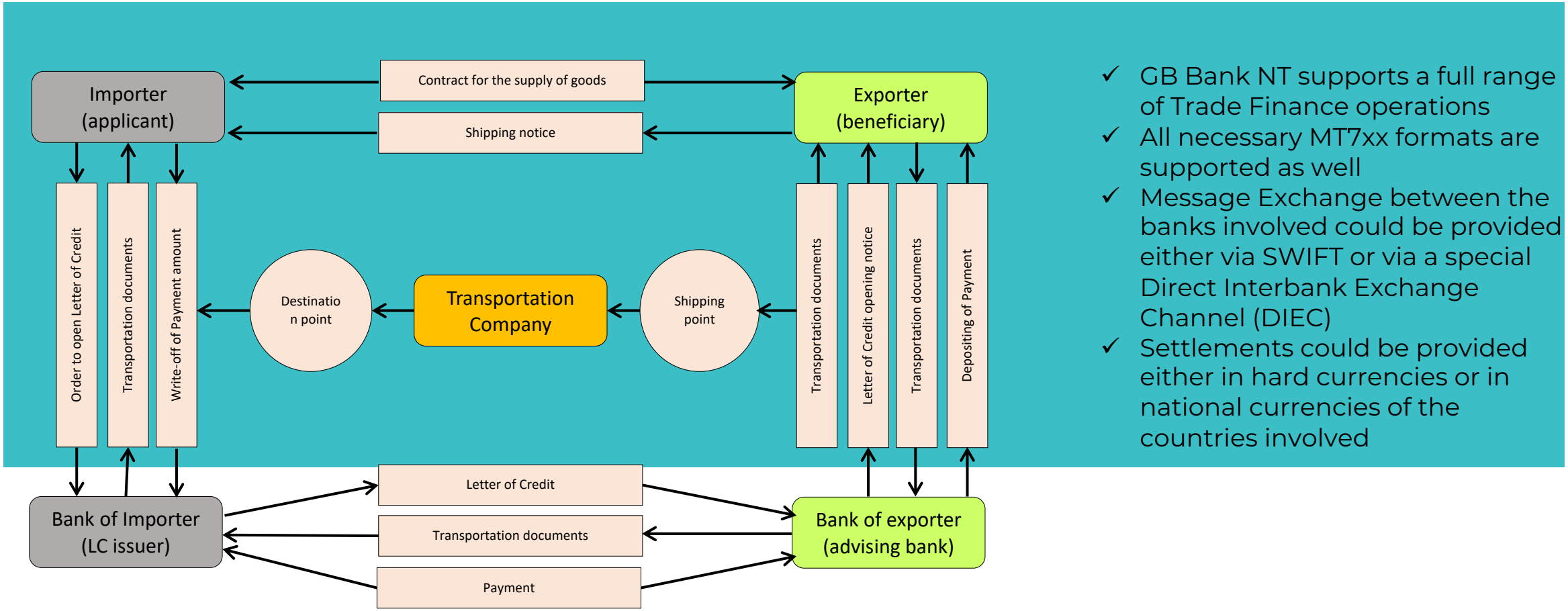
The system supports an enhanced access rights model suitable for a big bank with a complicated organizational and functional structure

The so called role-based model is used for access rights management and control of user functions

The system supports a full audit log of all the actions performed by the users

The full log of data modifications is supported as well

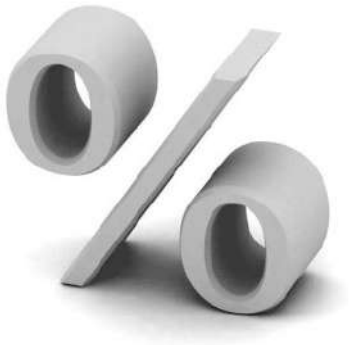
GB Bank NT: Trade Finance operations



- ✓ GB Bank NT supports a full range of Trade Finance operations
- ✓ All necessary MT7xx formats are supported as well
- ✓ Message Exchange between the banks involved could be provided either via SWIFT or via a special Direct Interbank Exchange Channel (DIEC)
- ✓ Settlements could be provided either in hard currencies or in national currencies of the countries involved

GB Bank NT: Deposit Agreements

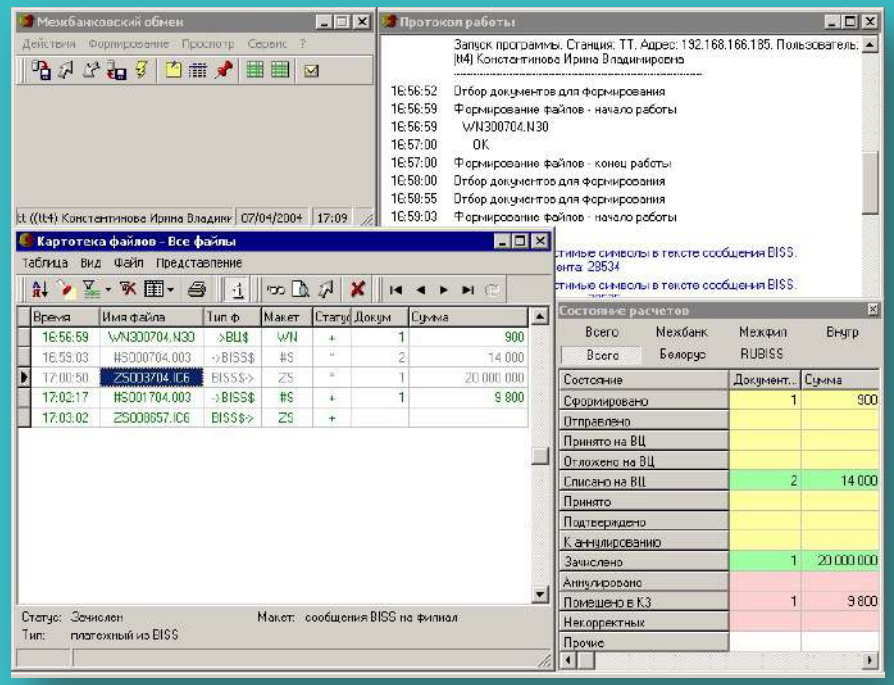
- ✓ Interest rates depend on the term of deposit & amount of funds
- ✓ Under certain conditions additional bonuses could be accrued for the customer
- ✓ Customer can select himself some conditions of the agreement including amount of funds, term of agreement as well as some conditions for prolongation/terminations of the agreement
- ✓Restructuring of deposit agreement
- ✓Module automatically fulfills all the routine operations on the agreement:
  - Interests accrual and capitalization
  - Fees & charges if any
  - Drawdown of interests
  - Rollovers
  - Generation of necessary operational reports



GB Bank NT: Lending Agreements

- ✓ Opening of Loan Agreement under agreed Terms & Conditions
- ✓ Set up of additional Fees & Charges
- ✓ Generation of repayment schedule
- ✓ Execution of all the operations on Loan Agreement with generation of all necessary supporting documents and accounting postings
- ✓ Monitoring of Loan Agreements
- ✓ Automated repayment from current account of a customer
- ✓ Reclassification of a loan to different categories of overdue debts
- ✓ Automated provisioning
- ✓ Cancellation of loan agreement
- ✓ Automated generation of postings required
- ✓ Generation of all necessary operational reports

GB Bank NT: Money Market module capabilities



- ✓Capturing of Money Market deals
- ✓Confirmation of MM deals with MT320
- ✓Monitoring of incoming and outgoing cash-flow for MM deals
- ✓Interests accrual for MM deals
- ✓Settlements on MM deals either via SWIFT or through local RTGS
- ✓Automated generation of all necessary accounting postings
- ✓Operational reports on MM operations

GB WLC/KYC/AML: Black-lists checking & Anti Money Laundering functions

Module provides the info on inclusion of particular physical persons or legal entities to various black-lists – therefore minimizing financial and reputational risks of the bank

Module provides a screening against various black-lists in the response to the parameterized request of the external system

→Database actualization is supported under the procedure prescribed by the supplier of black-list data – 3 modes are available: automated, manual, on the schedule

Module provides the check of the indicated physical persons / legal entities against black-lists supported by Dow Jones & World Check agencies as well as against any additional black-lists

Module could be used:
→Locally
→Remotely

Response to the request is provided in on-line mode

GB WLC/KYC/AML advantages

1. A separate product with extra-fast implementation (not months but days)

2. Based on WEB-technologies

3. All data sources are identified and references included

4. Screening results are available in on-line mode

Support of Dow Jones & World-Check databases which includes all black-lists worldwide:

- PEPs (Politically exposed person),
- “Fake banks”,
- Launderers of dirty money,
- Terrorists,
- Scammers,
- Drug-traffic participants,
- Members of different criminal societies as per the info of BOE, FSA, EU, CSSF, SECO, Deutsche Bundesbank, CBF, MINEFI, CONSOB, AFM, IFSA, UE, FISE, JFSC, GFSC, IOMFSC and all offshore agencies, OFAC, UNO, FBI, CIA, SECO, Interpol).

Possibility to support separate local black-lists to be monitored under local legislation

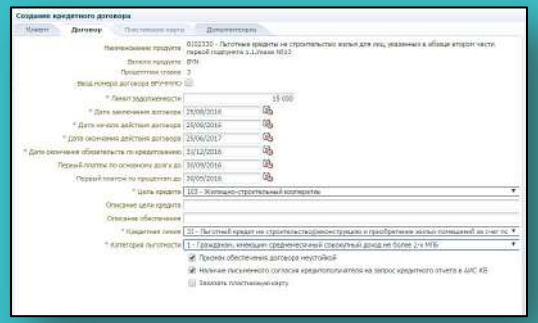
GB Retail Bank: Deposits, Loans and Plastic Cards incl. cards logistics

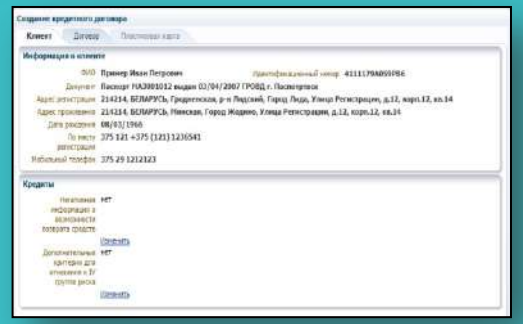
Card logistics operations supported

- ✓ Delivery of blank cards, transfer thereof to embossing center, accounting of both blanks and embossed cards.
- ✓ Issue of a Card (as a database object), getting it from embossing center and transfer it to the client, elimination of a card when expired.
- ✓ Management of Card Statuses (soft and hard stop-lists)
- ✓ Management of operational limits of Cards
- ✓ Out-of-the-box integration with the majority of popular processing center solutions (with some of them – in on-line mode)
- ✓ Support of the directory of terminal devices of a bank, processing of settlement information on that devices received from processing center.
- ✓ Auto-generation of accounting entries for a clearing with other participants of a payment system
- ✓ Analytical reporting on the operations performed in bank's terminal devices

The list of Card Products supported

- ✓ Settlement (Debit) Card
- ✓ Saving Card
- ✓ Plastic Card with a cash-back
- ✓ Credit Card (including the support of Grace-Period)
- ✓ Overdraft Card
- ✓ Corporate Card (to be used by employees)
- ✓ Combined Products
- ✓ Automated opening of lending products associated with Cards
- ✓ Integration to various Loyalty Programs
- ✓ Set of various Fees (to be withdrawn either at the moment of operation or afterwards, during EOD)





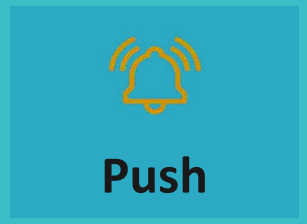


GB Notifications: Delivering to the customer necessary information









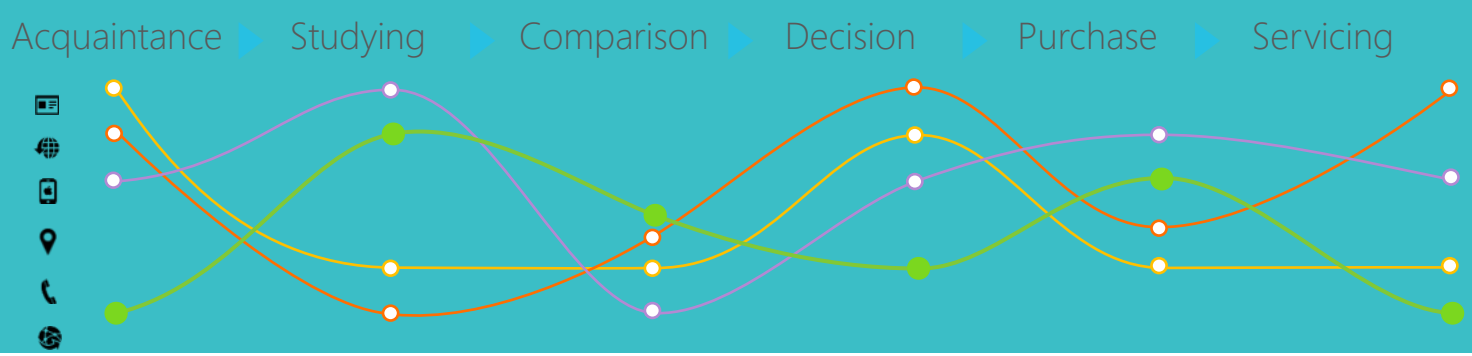
Functions supported:

- ✓ Flexible templates of messages
- ✓ Schedules for automated issuing of messages
- ✓ Selection of proper channel for message delivery
- ✓ Automated generation and distribution of messages
- ✓ Support of logs of all generated and distributed messages

Types of messages to be processed:

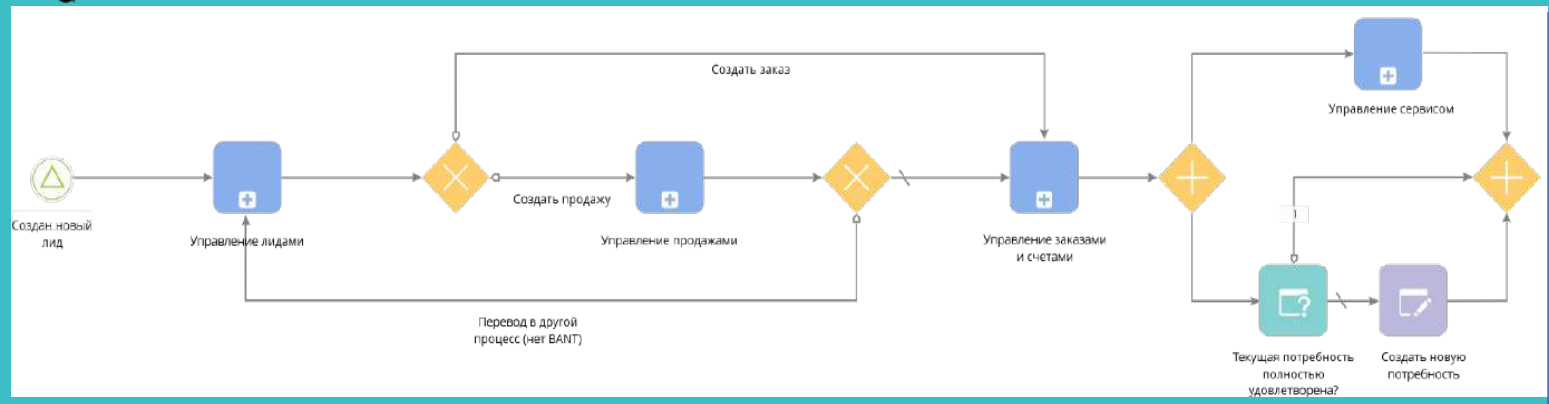
- ✓ Messages to the customer during loan application processing (status of application, additional documents needed, etc.)
- ✓ Messages to the customer during life-cycle of a loan (payments due, overdue debts, etc.)
- ✓ Messages on deposit agreements (termination of deposit, interest capitalization, etc.)
- ✓ Messages to the customer during Letter of Credit life-cycle (info on transport documents, info on funds movements)
- ✓ Info to the customers on incoming/outgoing operations on their accounts

GB CRM: a Customer Journey



How does the customer see this process:

- Omni-channel (incl. Internet, Mobile)
- Customer-centric
- Socially oriented

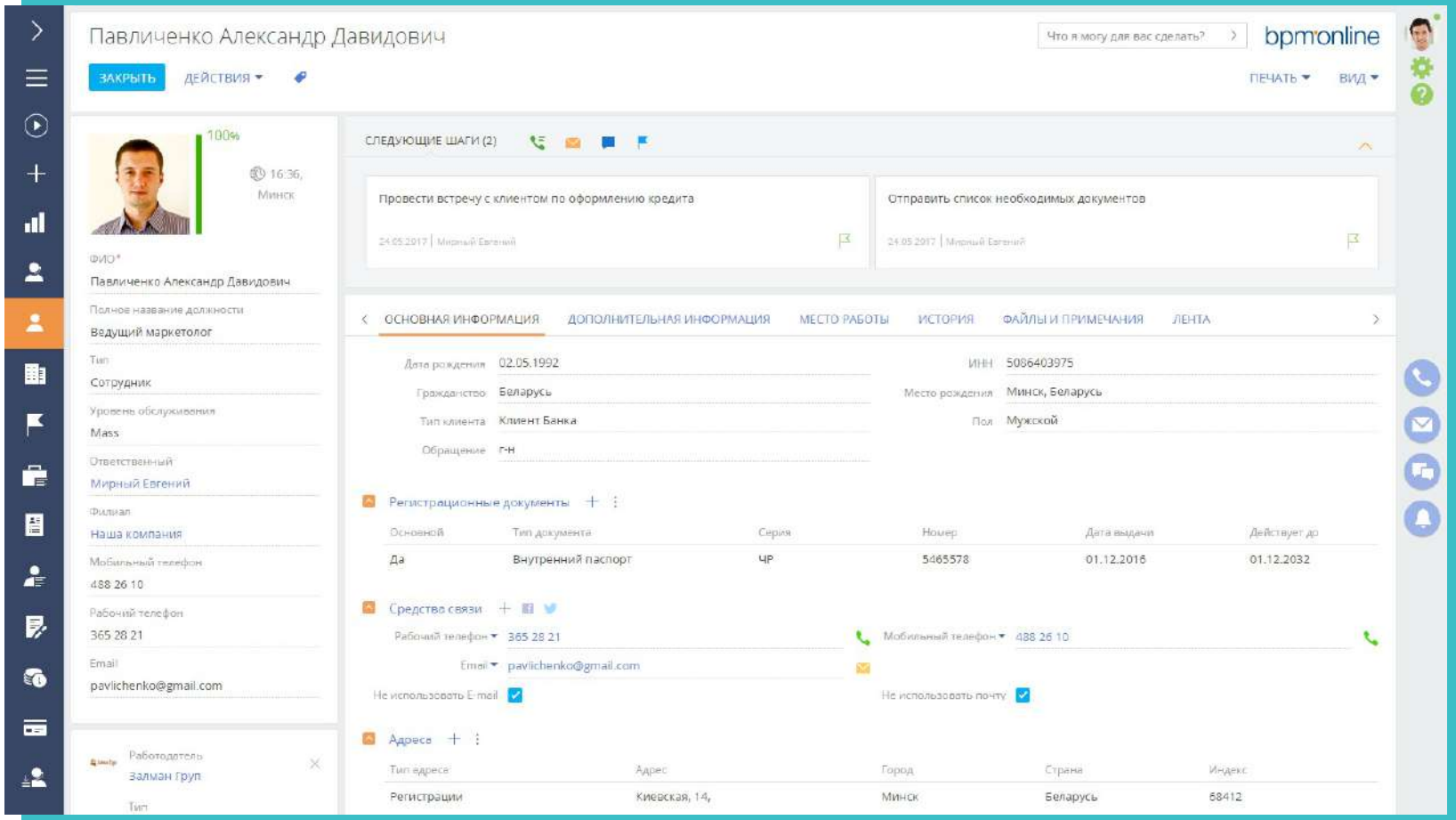


How does the bank see this process:

- Full coverage
- Best practices
- Analysis of client needs

Marketing | Sales | Service

GB CRM: 360° Customer View



- A single database of customers and prospects of the bank
- Full customer profile
- Customer segmentation
- Intellectual data enrichment
- Full history of inter-relations
- Adding data from social networks
- De-duplication
- Analysis of client database

GB CRM: Loan Factory

Application for a loan

- Unified Front-Office environment
- Identification of a customer
- Selection of pCapture of Application for a loan
- articular product
- Preparation of a full package of documents necessary документов

Underwriting

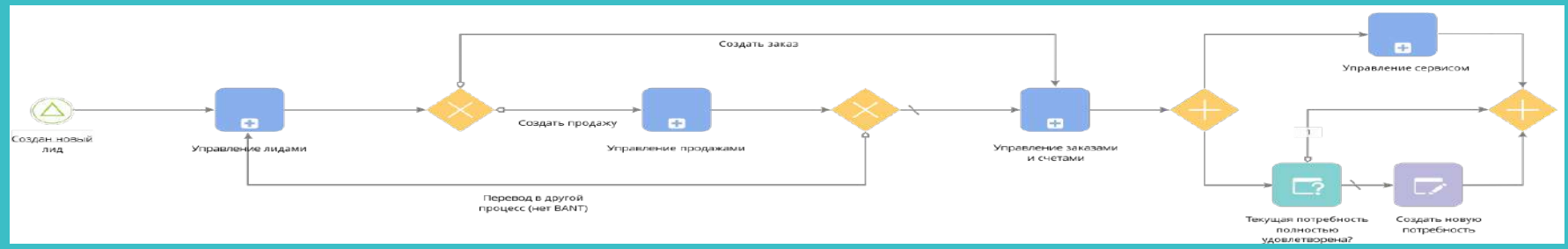
- Scoring ball calculation
- Verification by internal security service of a bank
- Credit Bureau check

Product life-cycle support

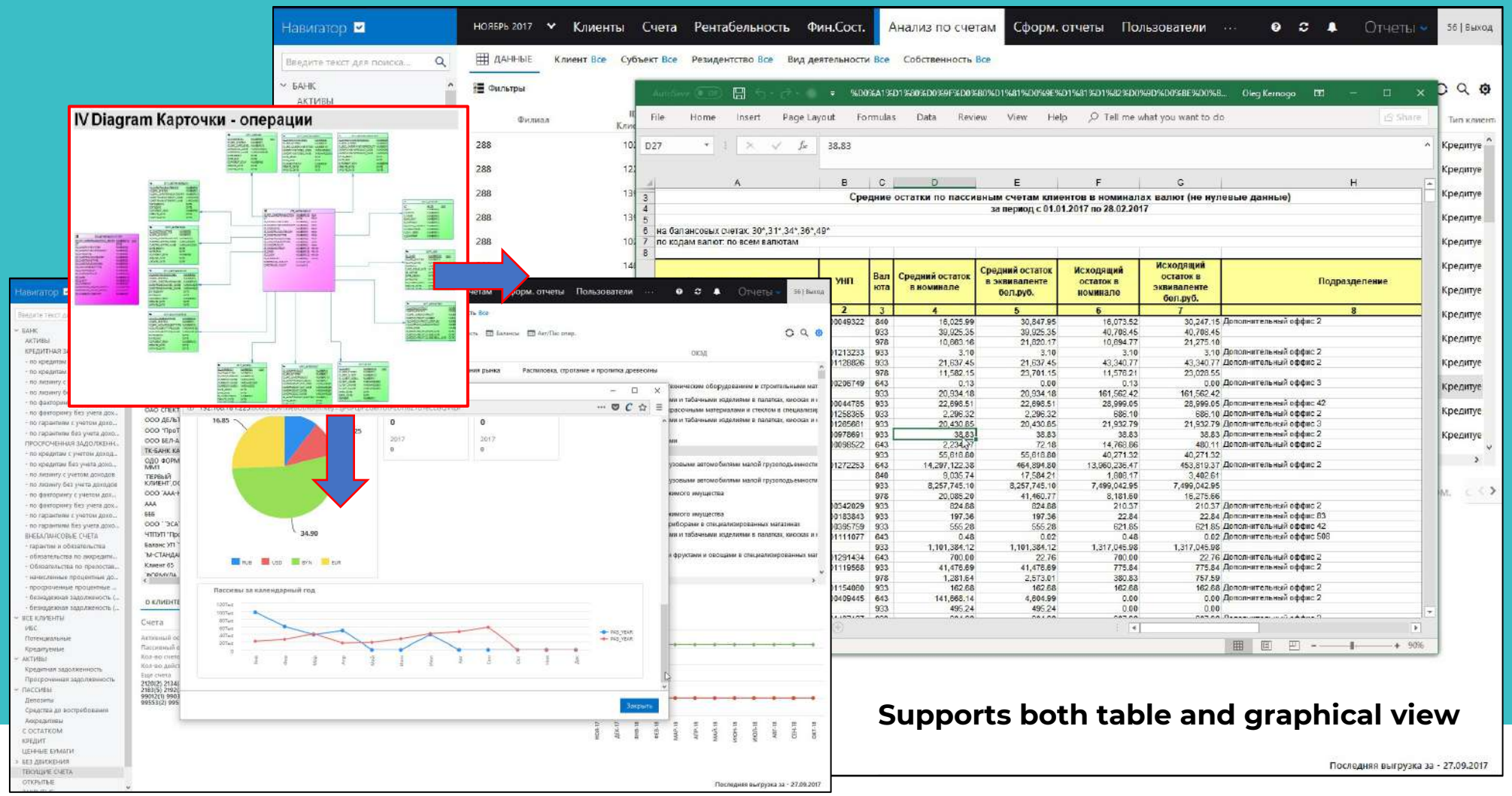
- Generation of Loan Agreement
- Drawdown of funds
- Interests accrual
- Prolongation of a loan
- Full and partial repayment
- Loan restructuring

Follow-up services

- Customer retention processes
- Call-Center functions (incoming and outgoing)
- Collection of an overdue debts
- Management of employees
- Reporting & Analysis (various dashboards)

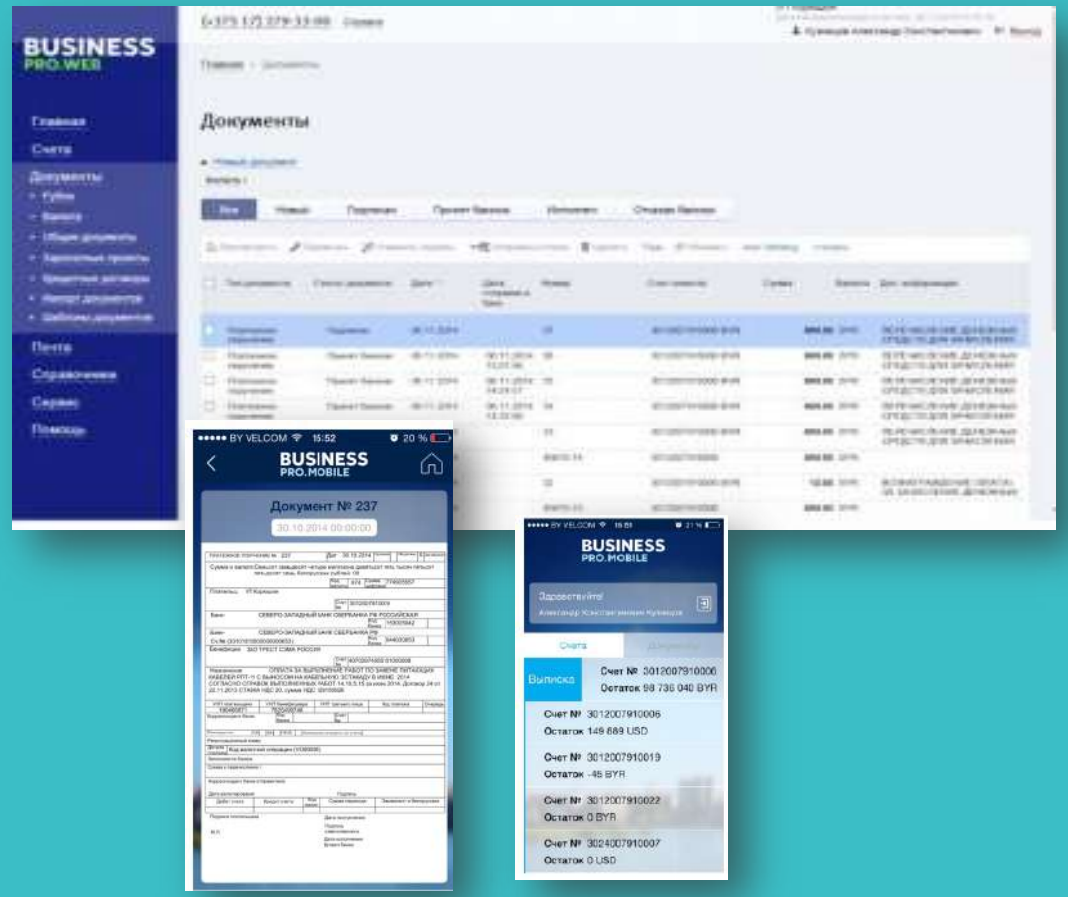


GB Insight: analysis & reporting based on data marts

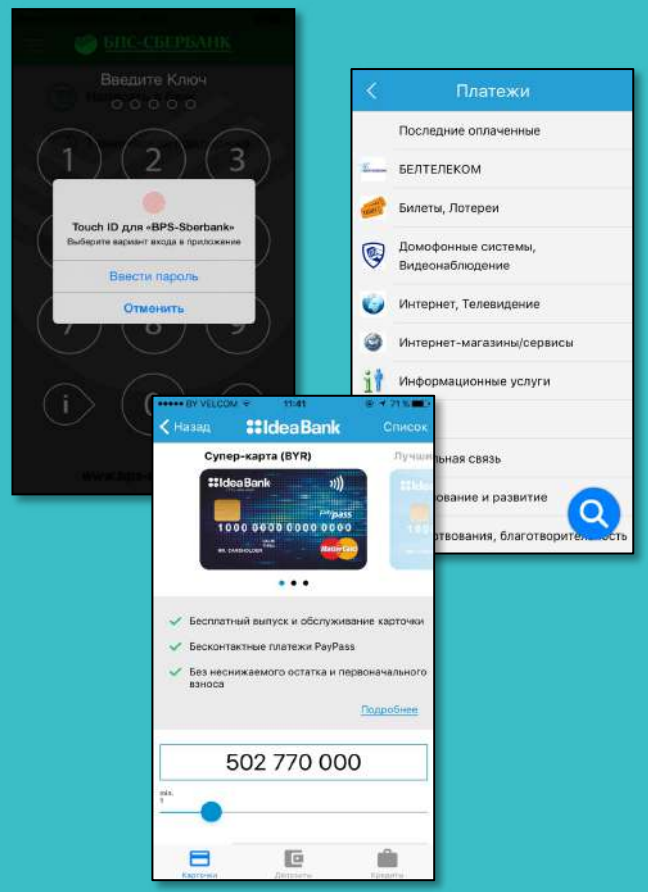


GB Digital PRO: Web and Mobile self-banking for SME/SMBs

- ✓ Access to a wide list of payment documents
- ✓ Multi-level authorization of documents
- ✓ Various levels of access rights
- ✓ Capable to manage several companies (subsidiaries) from one screen
- ✓ Various info-services
- ✓ Control of payment documents (incl. browsing of paper originals)
- ✓ Confirmation of payment documents with digital signature



GB Digital: the whole Bank in your pocket

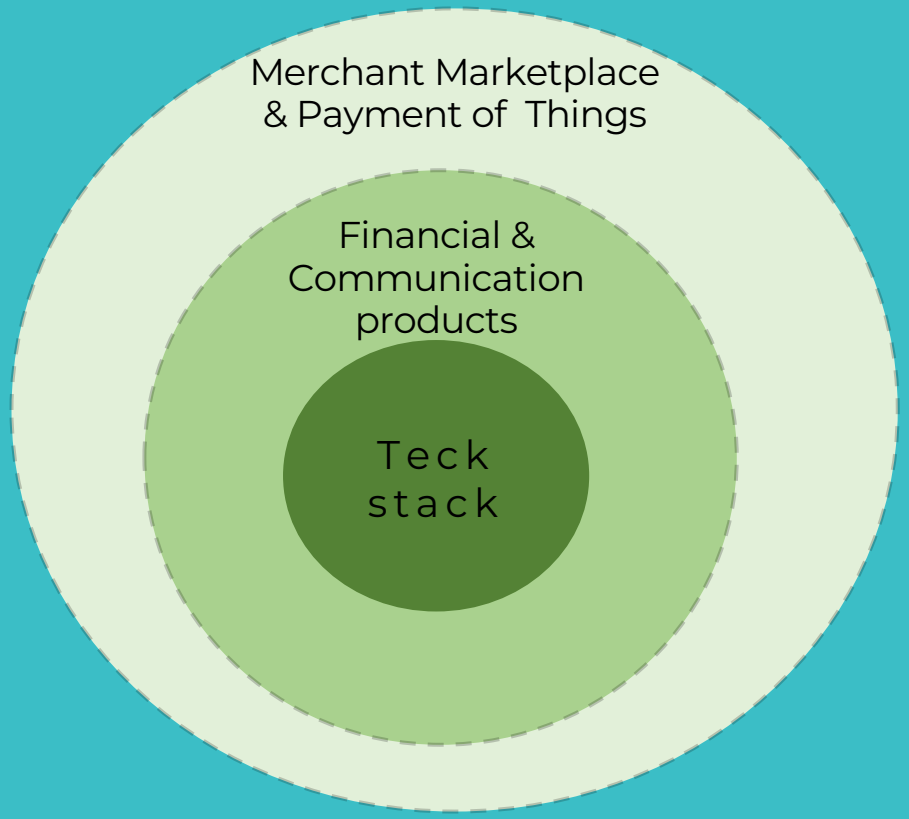


- ✓ On-line info on balances of your accounts / cards / loans / deposits / etc.
- ✓ Payments to various service providers
- ✓ Detailed history of all your payments
- ✓ Set up of PUSH & SMS-notifications
- ✓ Card-to-Card transfers inside and outside your bank
- ✓ Opening of a new account and ordering of a new card (with preferred design)
- ✓ Selection and opening of term deposits and depositing funds
- ✓ Application for a loan
- ✓ Repayment of loans
- ✓ Statement for any time interval
- ✓ Full info on products & services of the bank
- ✓ Info-services: bank on a map, currency rates
- ✓ Locking/Unlocking of a card
- ✓ An access to support services

New Digital Bank

What are the principles thereof and how the above GB components could be used

Rethinking The Business Model



- Merchant Marketplace - shared revenue models and targeted communications
- Payment of Things – paying for anything everywhere
- Need based financial products
- Subscription based financial products
- Customer lifetime value
- AI based customer behavior analytics, data analytics all along

....and all this done by competent industry experts, not only IT expertise!

OmniChannel App will give us unmatched proprietary data

- Credit History
- Bill Payments
- Utilizing PSD 2 regulations, aggregated information from all financial intuitions accessible
- Digital Footprint
- Revenue Service data through API’s



- Purchase & Transaction data
- Deposits and Accounts
- Biometrics
- Mobile and Internet usage data
- Merchant turnovers and margins

Above are just some of the data touch points with prospective customers and this is the most valuable assets we will have to work with

Utilizing AI and data analytics technologies to identify next best transaction of the customer and respond accordingly as well as refine the credit history to the actual performance of the customer.

Problems We Would Like To Solve!

- Make everyone's life easier – having a SuperApp approach creates a one stop shop for all necessary spending needs of the customers in today's ever evolving e-commerce society. Both for customers and merchants!
- Remove all unnecessary costs from money – achieve lower cost through technologies and digital presence and transfer those benefits to members.
- Payment of things – create the infrastructure for C2B and B2B payments within the network to make quick/seamless and cheap payments without any 3rd party payment gateways (i.e. visa/mastercard), pay for anything and everywhere;
- Delivering best offers/needs for the client through Super App effect - providing exactly those products and services that the customer needs. Providing goals-oriented behavior suggestions through utilizing client data with respective AI technologies and matching them with best third-party products/platforms. (Merchant Market Place)
- Improve on Financial literacy & Financial Sustainability of Individual or Company – through cutting edge technologies provide simplistic view of the client's financial health and provide respective savings and spending recommendations, utilizing client's spending behavior analytics for right recommendations and goal settings.
- Diaspora financial inclusion - onboard diaspora and equip with banking services, minimize money transfer costs and barriers, while provide spending control of money transferred.

3-Dimensional model of digital finance space

- In a modern digital world there are 3 aspects of retail business which permanently become more and more interconnected:
  1. Focus on customers. Multi-banking APP based on PSD2-directive & Open API principles becomes urgent demand of a market because it will allow the customer to use all their assets for payments, savings, investments in a simple digital form – independently of a particular bank, instrument (card, account) and currency (incl. crypto).
  2. Focus on merchants. Merchants become more deeply involved to banking operations – starting from different forms of BNPL-option and moving on to the usage of common ecosystem capabilities (common marketplace, cross loyalty program, targeted marketing campaigns)
  3. Focus on transparency of payments and channels of settlements. Advanced billing & settlement infrastructure which is necessary to provides mean for the support of multilateral retail business (customer/merchant/bank/agent/aggregator/etc.)
- No one of these 3 business aspects could be developed separately. Moreover, there is NO ENTITY to order any of them separately. But being moved jointly they could bring a really new quality to the market.
- Each of these 3 aspects has its own “must have” features and its own breakthrough technologies. But real initiatives usually touch each of them because in fact they are dependent on each other and should be well-balanced.
- The perspectives of implementation of PSD2 directive have to be positioned as the center of technological strategy of a new bank. We believe that PSD2 has to be implemented in advance – not waiting for Central Bank regulations. It means the possibility of processing inside new bank’s mobile APP of all the payments of a client, from all his accounts, including those managed by other banks. This will bring to a new bank the possibility to penetrate deeply into the segment of retail settlements.

Main points to attract the customers / merchants to a New Digital Bank

Primary Principle:

Transactional Banking services of a New Digital Bank (NDB) for clients & merchants are free:

1. Zero commissions on all payments from the platform – some commissions if levied by the specific merchant
2. Zero interest on purchases made within merchant marketplace – payments utilizing BNPL option (% paid by Merchants)
3. Zero commissions on FX dealings and Crypto dealing – at market rates of an Exchange

Later on NDB also will provide multi banking capabilities (utilizing the capabilities of PSD2 – Open Banking directive) where all 3 key features above will be spread to 3rd party banks

contact us

give us a call 8 800 600 73 07

write us info@genesisblock.it



follow our social accs

groups/genesisblockit

t.me/gb_IT

GenesisblockIT

@genesisblockIT

genesisblock.it

Genesisblock

