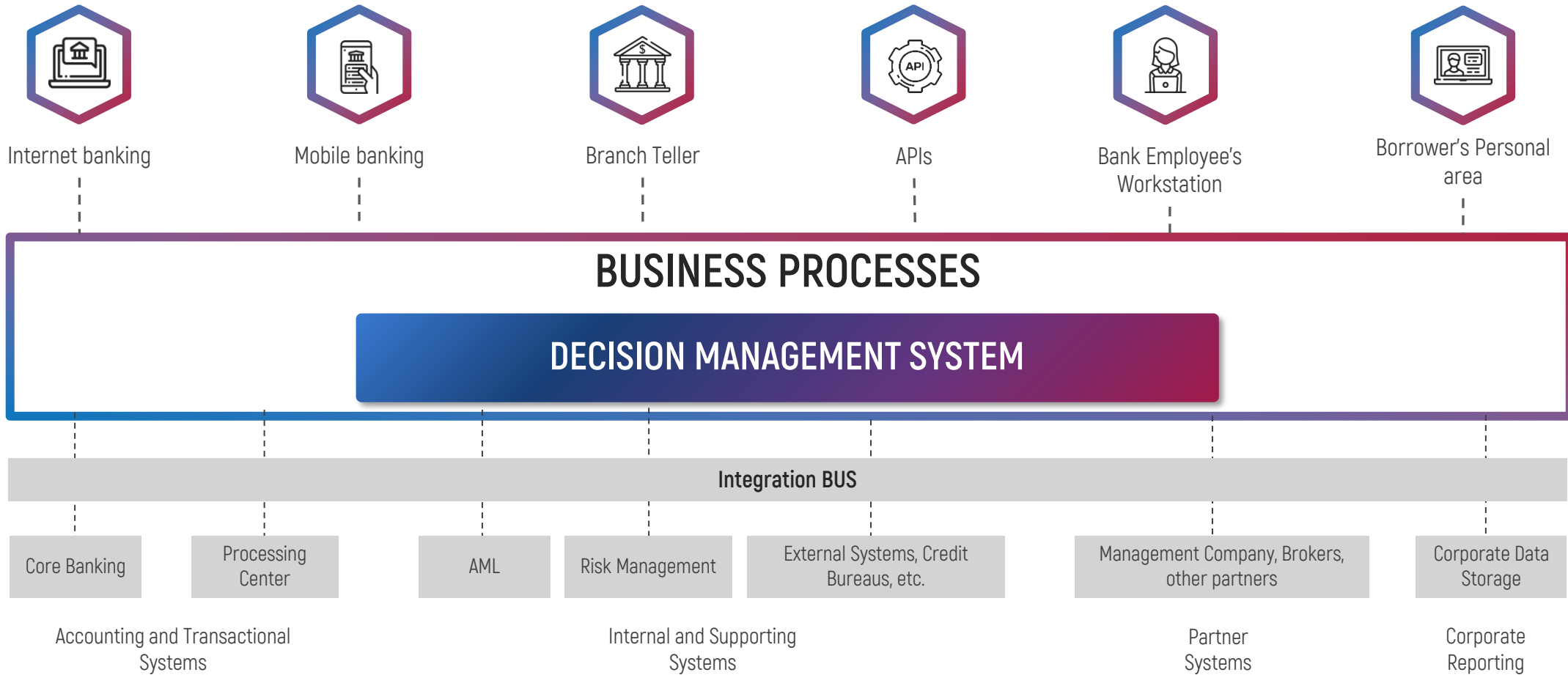


# SCORING & DECISION MANAGEMENT

**AUTOMATE, SPEED UP & STREAMLINE  
DECISION-MAKING PROCESSES**

**DQ DMS**

# PLACE IN THE ARCHITECTURE



# SCORING COMPONENTS

## Scoring Models

Creation and management of scoring models for banks and insurance companies.

## Business Processes

Pre-integrated environment for execution of business processes used to collect and prepare information for scoring.

## Scorecards

Specialized tools for design of scorecards, trees and scoring matrices.

## Low-Code Tools

Set of tools to easily design, edit and set up decision rules, processes and strategies without involvement of IT experts.

## Analytical Reporting

Built-in analytical tools for both real-time reporting and analysis of data for a selected period.

# SOLUTION FUNCTIONS

Automate, speeds up and streamline decision-making processes

- ✔ Setting up and debugging decision-making strategies, business rules
- ✔ Execution of decision-making strategies
- ✔ Issuing decisions based on results of execution of decision strategies
- ✔ Customer onboarding (legal entities and individuals)
- ✔ Mass processing of customer data and notification of customers on pre-approved offers or applications.



### USER TASKS

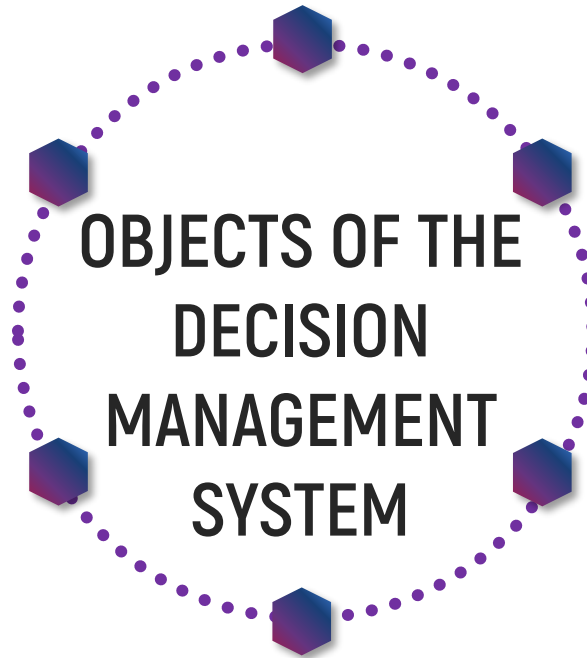
If a decision is in the grey area, the system assigns a user task for an underwriter and controls the time of its execution.

### REGISTRY OF DECISIONS

Taken decisions are saved as separate objects with a breakdown by decision-making inquiry. It ensures convenient generation of operational and managerial reports.

### DECISION-MAKING INQUIRIES

Receiving a request, the Decision Management system creates a flexible object that launches a suitable decision-making strategy.



### DECISION-MAKING STRATEGIES

Decision-making strategies are set up and executed as a BPM process. Strategies can call external systems to enrich data.

### BUSINESS RULES

Decision-making strategies allow setting up decision-making rules and matrices for calculation of scores and other algorithms.

### REPORTS ON CHECKS

When a check is completed, it is saved in the business log, and the user can track it at any time.

# DECISION MAKING STRATEGIES



DECISION MAKING STRATEGY 1:  
PRE-QUALIFICATION: CHECKING  
AGAINST STOP FACTORS



DECISION MAKING STRATEGY 2:  
FULL PROCESSING OF  
APPLICATIONS

STRATEGIES

# STRATEGY #1: DECISION MAKING BY CHECKING STOP FACTORS



## CALCULATION OF INTERNAL DATA

- Calculation of the monthly income
- Calculation of the living wage
- Calculation of the maximum limit
- Calculation of the maximum monthly payment
- Verification of internal limits:
  - Limit on loan agreements
  - Limit on loan applications



## ANALYSIS OF THE INTERNAL CREDIT HISTORY

- Check of the duration of overdue periods
- Bad payment check
- Check of the amount of overdue payments
- Loan status check
- Check for available approved loan applications



## SCREENING AGAINST WATCH LISTS

- List of terrorists
- Black lists
- List of invalid passports
- List of bankrupts
- Tax ID check
- Social security number check
- Criminal record check



## INITIAL APPLICATION CHECKS

- Income check
- Check if manual checks are required
- Check of the non-standard checkbox



## INITIAL CHECKS OF THE BORROWER\ COBORROWER

- Nationality check
- Minimum\maximum age check
- Check of the region of registration of the borrower
- Check of the region of registration of the employer
- Employment history check
- Military duty check

# STRATEGY #2: DECISION MAKING BY FULL PROCESSING OF APPLICATIONS



## CREDIT BUREAUX CHECKS

- National Credit Bureaux
- Equifax
- Calculation of the maximum limit
- Calculation of the maximum monthly payment



## CALCULATION OF THE MATRIX OF OFFERINGS

- Product
- Interest rate
- Term
- Down payment
- Monthly payment



## VERIFICATION OF SCORES

- Calculation of the Bank's credit score
- Verification of the Credit Bureau's score
- Verification of the FICO credit score



## OTHER CHECKS

- Criminal record check
- Wanted Check
- Drug and prostitution check
- Invalid passport check
- Employer verification



# UNDERWRITER'S WORKBENCH

✓ VERIFICATION OF THE CUSTOMER'S DOCUMENTS

✓ ANALYSIS OF THE CUSTOMER'S CREDITWORTHINESS

✓ ANALYSIS OF THE CUSTOMER'S CREDIT HISTORY

✓ MANUAL DECISION MAKING



# DECISION MANAGEMENT SYSTEM

## SUPPORTING TOOLS



### LOGGING OF STRATEGIES AND BUSINESS RULES

The system provides a mechanism for monitoring of strategies and business rules. It can be used to track each decision and analyze why it was taken.



### LOGGING OF INCOMING AND OUTGOING REQUESTS

The system provides a mechanism for logging of incoming and outgoing requests which is used to analyze integration errors between systems.



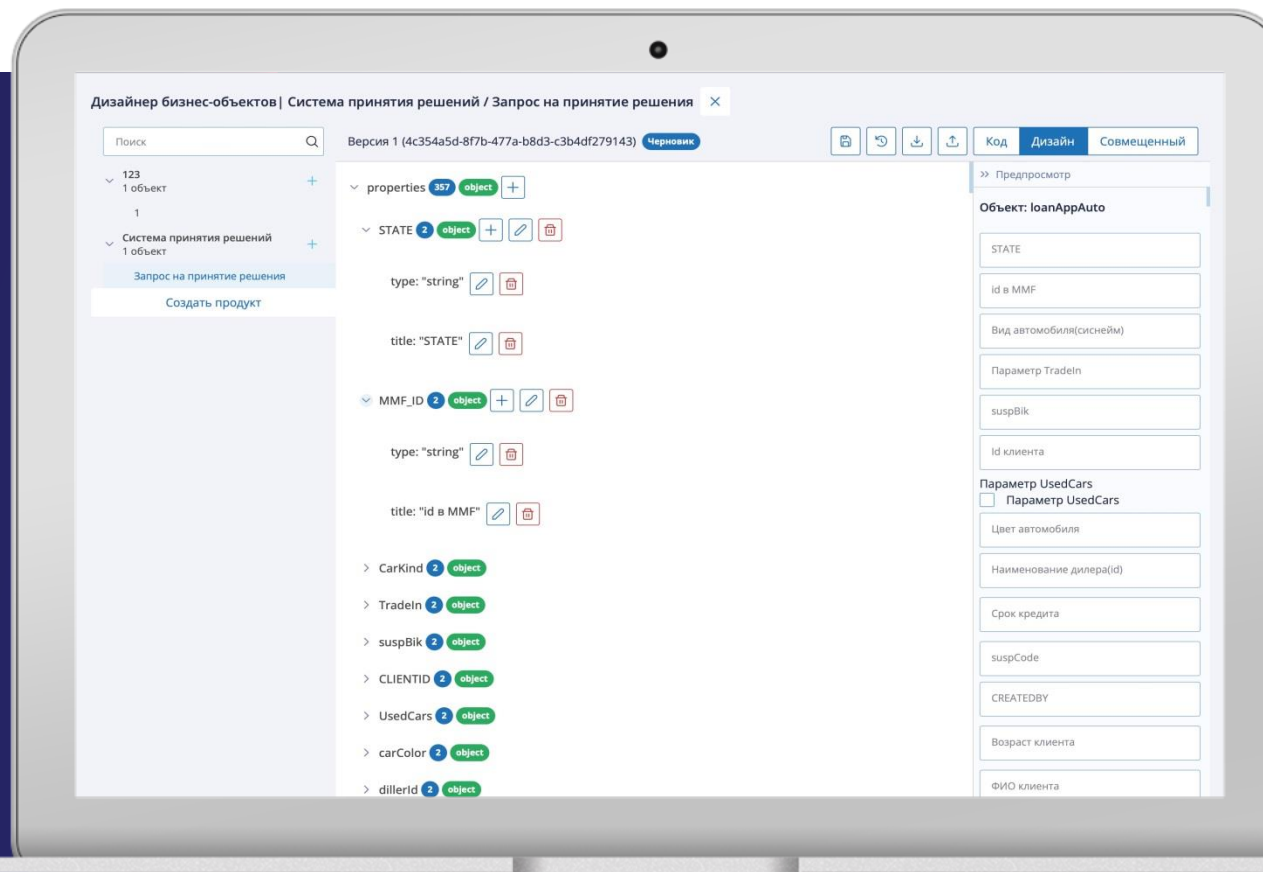
### FLEXIBLE REFERENCE LISTS

Decision management strategies often use various reference lists (list of interest rates, living wages, etc.), and the system provides tools for flexible management of such lists.

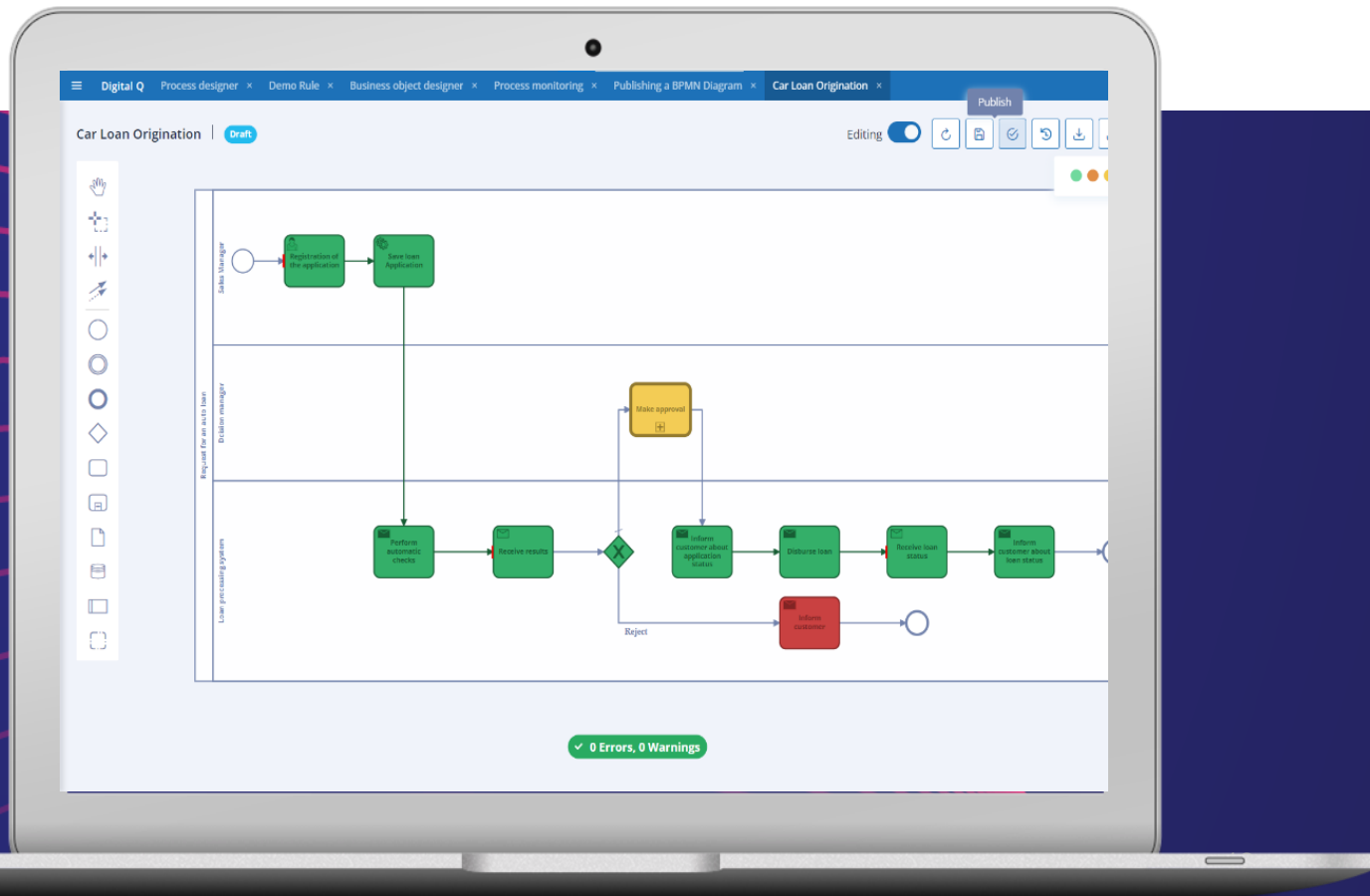
# FLEXIBLE SETUP OF REQUESTS TO DMS

## DESIGNER OF BUSINESS OBJECTS

- ✓ **Design of objects**  
Visual tool for design of business object in the JSON format
- ✓ **Dynamic APIs**  
Automatic generation of CRUD APIs based on the pre-  
ser JSON diagram



# FLEXIBLE SETUP OF STRATEGIES



## DESIGNER OF BUSINESS PROCESSES

- ✓ **Design of strategies**  
Visual tools for design of strategies with the use of the common BPMN notation
- ✓ **Tasks**  
Assigning tasks to specific users, roles, business units
- ✓ **Hints**  
In-built checks for verification of processes, user hints

# FLEXIBLE SETUP OF BUSINESS RULES

## DESIGNER OF BUSINESS RULES



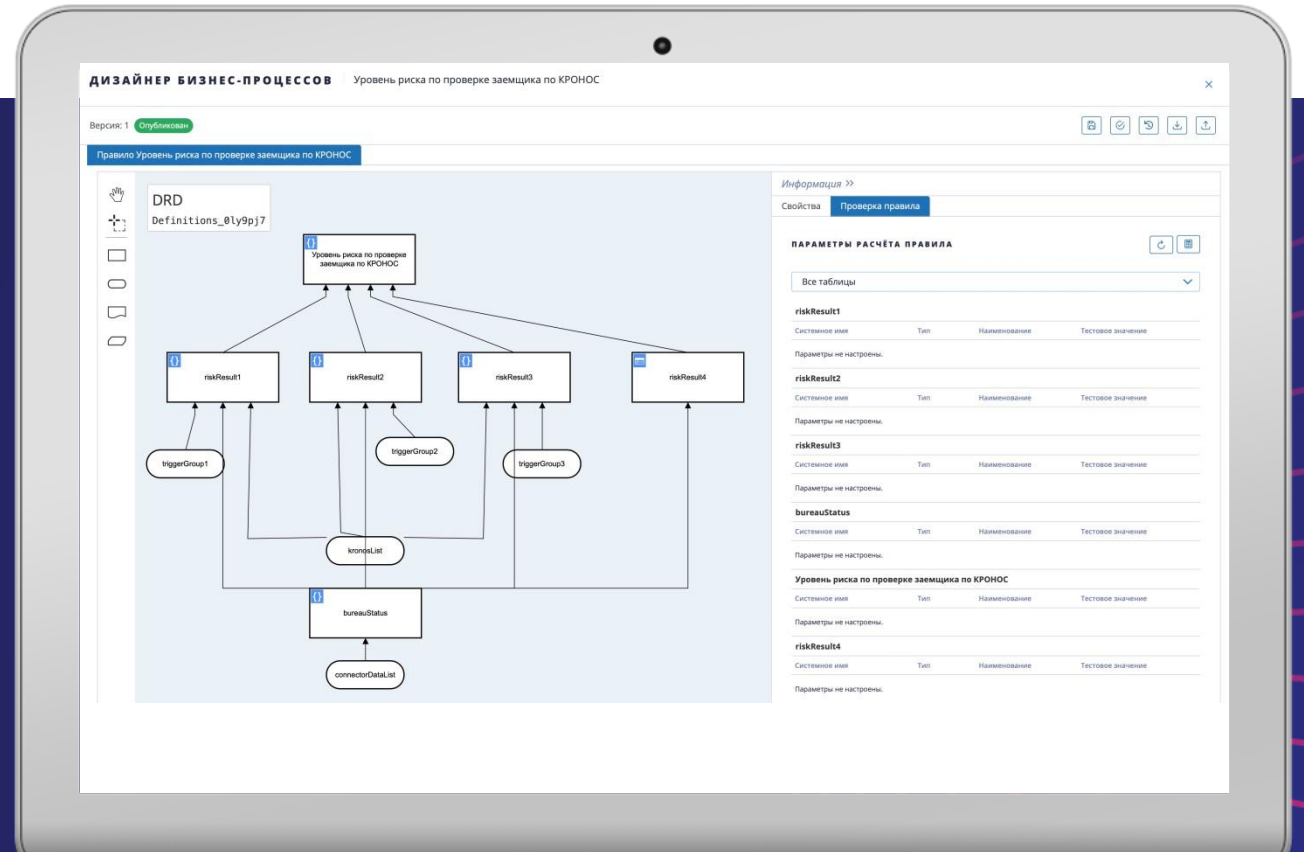
### Design of business rules

Visual tool for design of decision trees, rules and matrices in the popular DMN notation



### Low Code

Usage of popular programming languages for complex calculations and algorithms



# REPORTING TOOLS

The solution provides a separate module for setup of operational reports:

- ✓ Reports on issued decisions
- ✓ Reports on declines with a breakdown by the reason of decline
- ✓ Conversion rate
- ✓ Tracking sales KPIs: user task processing KPIs, KPI breakdown by business unit, user, etc.
- ✓ Number of completed/declined applications, sales by branch/sales manager, etc.
- ✓ Forecasts
- ✓ Interactive analytical dashboards



# ABILITY TO INTEGRATE

READY-TO-USE ADAPTERS FOR



APIs TO EXTERNAL SYSTEMS

# ADVANTAGES OF MICROSERVICES



## UI/UX

Quick opening of screen forms, rapid switch between screens, **2-3 times faster** internal processes due to modern interface technologies and business process engine.



## Low Code

The solution represents an **innovative Low-Code platform**, which allows solving most of business tasks without coding or with a minimum amount of coding.



## Time-to-Market

Much faster implementation of new business requirements and time-to-market due to:  
1) quick implementation of new requirements;  
2) automatic deployment; 3) quicker go-live.



## Availability

The solution is available **24x7**. Updates are implemented only in selected services or even for a specific group of users and without suspension of operations. New versions of services run simultaneously with old ones and replace them gradually.



## Quality

Since the solution is designed as a combination of independent components, it ensures **low risk of regression** and no need for long or repeated testing by the Bank's IT and business users.

# OUR EXPERTISE

SYSTEM INTEGRATION & DELIVERY OF THE LEADING GLOBAL SOLUTIONS IN ASIA PACIFIC

GLOBAL BEST PRACTICES, SOLUTIONS & TECHNOLOGY FOR THE FINANCIAL SERVICES INDUSTRY

VAST EXPERIENCE IN RETAIL, CORPORATE AND BUSINESS BANKING

COMPLEX DIGITAL TRANSFORMATION PROJECTS

CUTTING-EDGE FINANCIAL TECHNOLOGY

# THANK YOU

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