

DIGITAL BANKING PLATFORM

DIGITAL TRANSFORMATION & EFFECTIVE REPLACEMENT
OF LEGACY SOLUTIONS

DQ DIGITAL PLATFORM



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**ABOUT
THE PLATFORM**

THE PURPOSE OF THE DIGITAL BANKING PLATFORM

UNIFIED DIGITAL PLATFORM:

- Creates a single point of management of company business processes.
- Provides a complete set of tools for design, automation, monitoring and streamlining of business processes.
- Establishes the digital environment for employees and customers.



PLATFORM GOAL:

To increase the efficiency of the company's operations by digitalizing all of its key business processes. This not only improves internal operations, but also ensures a higher level of customer services.

PLATFORM USE CASES

DIGITALIZATION OF PROCESSES
IN ANY AREA OF THE COMPANY'S OPERATIONS

200+ Successful
projects



Customer service processes (loan origination, teller, bank front-office, sale of products and services)



Partner and counterparty management



Marketing and sales

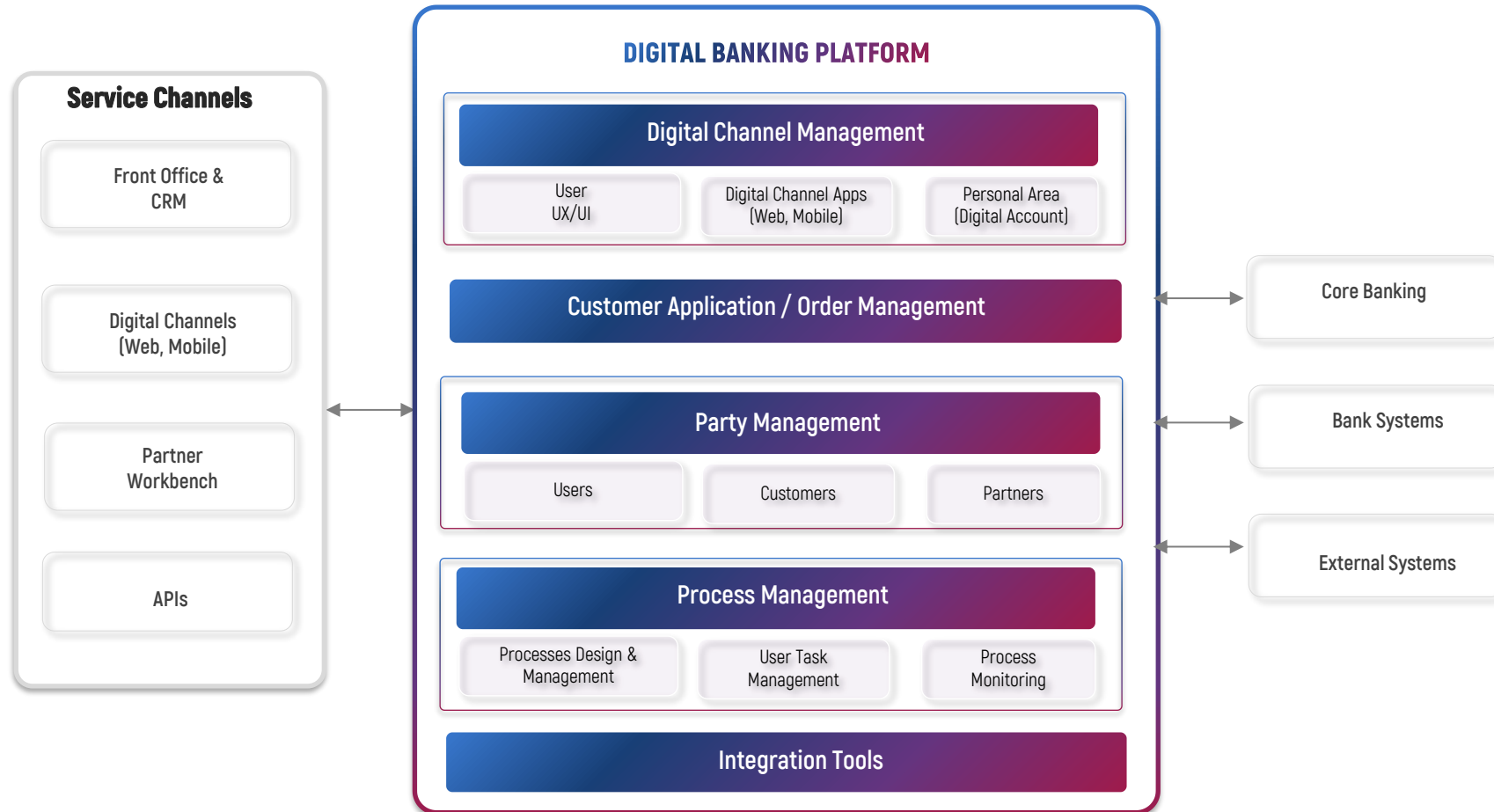


Enterprise management and planning



HR management

PLATFORM ARCHITECTURE



PLATFORM TASKS



DIGITAL TRANSFORMATION

- Digitalization of unautomated processes.
- Fixing bottlenecks and losses in existing processes.
- Improvement of the customer loyalty and employee performance.



LEGACY RENOVATION

- Replacement of legacy systems.
- Update of mission-critical products that impact business sustainability.
- Creating the basis for the future development.



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**DIGITAL
TRANSFORMATION**

DIGITAL TRANSFORMATION CHALLENGES

CREATION OF DIGITAL CHANNELS

Historically, digital channels were created as isolated siloed solutions solving their specific tasks. Now, the businesses require omnichannel support and integration of channels into unified bank processes

USER MANAGEMENT

Ability to connect experts at specific process stages as seamlessly as possible, without manual tracking of process steps or switching between systems

CREATION OF THE UNIFIED DIGITAL ENVIRONMENT

The need to provide access to data and services of all IT systems of a company (including legacy and siloed systems); support of aggregated data and a convenient single API

PERFORMANCE AND AVAILABILITY REQUIREMENTS

Digital channels and processes establish new requirements for the performance and availability of IT systems or their individual modules, which can become blocking or not capable to comply with the new requirements

PROCESS AUTOMATION

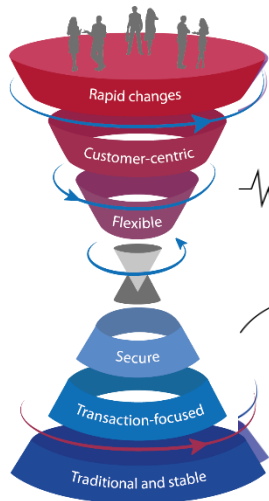
The need to automate all steps required to perform user operations, completely eliminating manual execution of instructions

PERFORMANCE MANAGEMENT

Transparent monitoring of business processes and task processing is becoming critical in digital communications

BI-MODAL ARCHITECTURE

Architectural approach to the digital transformation:
Separation of the process-based management from
functional accounting



DIGITAL PLATFORM

Processes: LOS, CRM, Contact Center, Teller, Channels (web, mobile), etc.

CORE SYSTEMS

Set of functions: general ledger, accounting, reporting, etc.

PRODUCTS/SERVICES = BUSINESS PROCESSES

DIGITAL TRANSFORMATION = DEVELOPMENT OF PROCESSES + DIGITAL CHANNELS

WHAT MAKES THE DIFFERENCE

- ✓ Quick implementation of business requirements
- ✓ Technological advantages
- ✓ Real component-based approach
- ✓ Quick deployment and new methods of testing
- ✓ High load architecture
- ✓ 24/7 availability

SEPARATION OF THE PROCESS-BASED MANAGEMENT FROM FUNCTIONAL ACCOUNTING

KEY ADVANTAGES

The bi-modal architecture allows reducing requirements for high flexibility and quick changes in functional back-office systems



FUNCTIONAL SYSTEMS

- Ability to develop functional systems independently
- Ability to use systems by different vendors









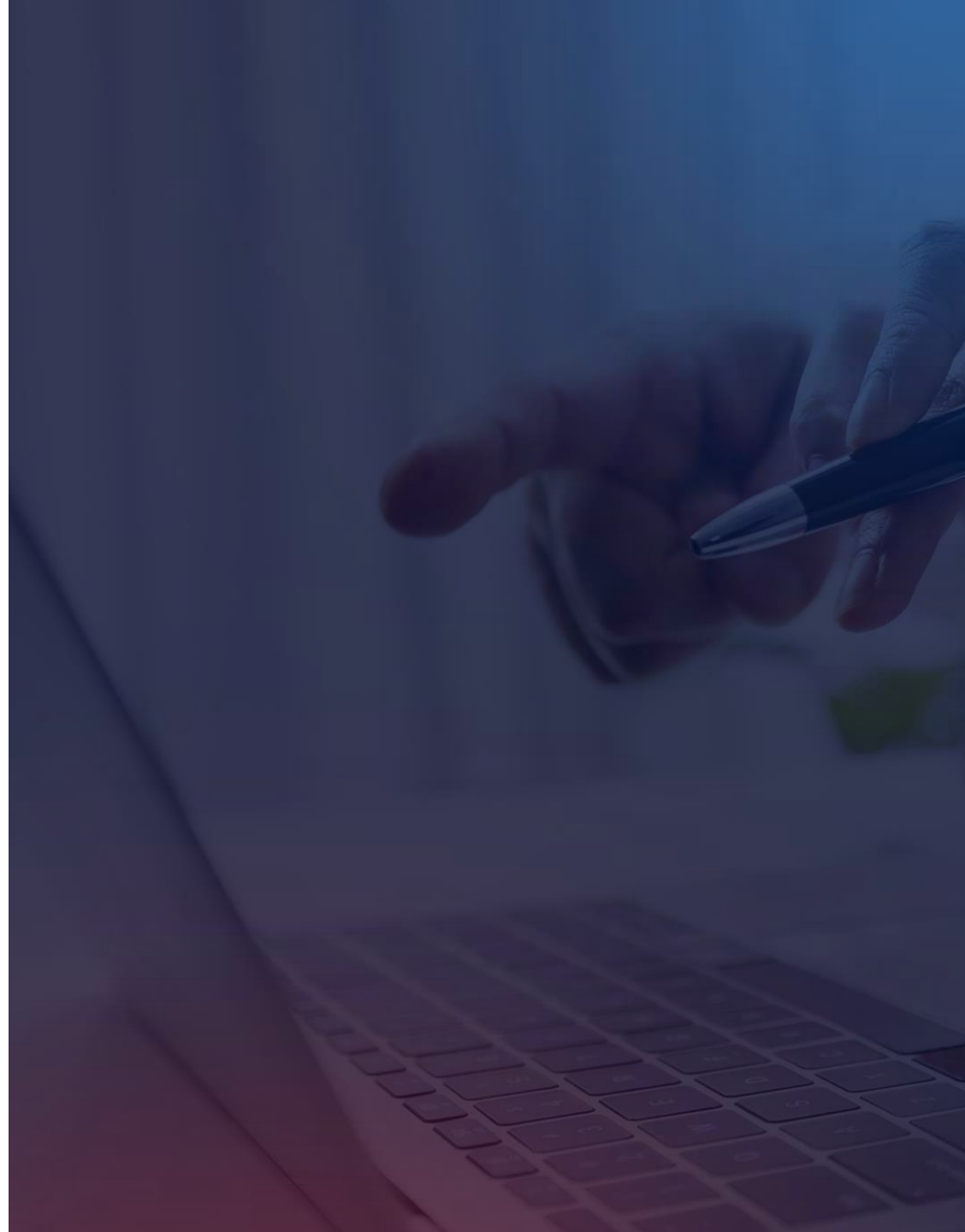
PROCESS-BASED MANAGEMENT

- Centralized register of business processes
- Common approaches to the measurement and analysis of performance
- Ability to quickly change any company processes

EMPLOYEE'S PERSONAL (DIGITAL) AREA

CENTRALIZED ACCESS TO ALL REQUIRED
INFORMATION

-  Single customer service window
-  Front-office business processes & Functional blocks
-  My tasks
-  Bank product details
-  News feed
-  Process execution, etc.



ABILITY TO MEASURE AND IMPROVE THE PERFORMANCE



PROCESS ANALYSIS

- By speed
- By cost
- By user performance



AS A RESULT – NEW OPPORTUNITIES

- Ability to detect and eliminate bottlenecks and speed up processes
- Ability to reduce the cost of business processes
- Ability to improve the user motivation



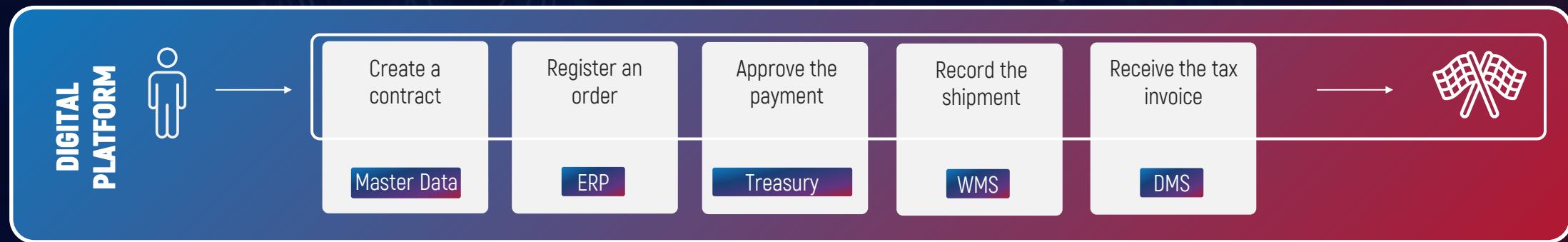
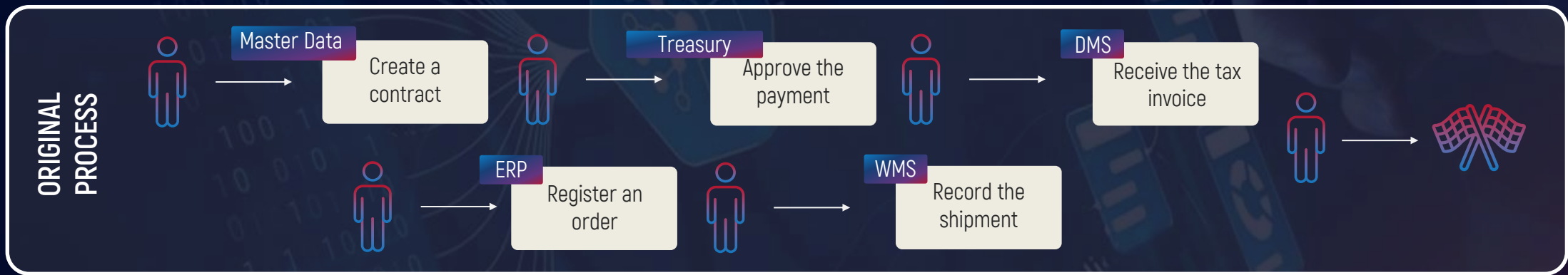
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**PROCESS
CENTRALIZATION &
AUTOMATION**

PROCESS AUTOMATION

Automation of organizational, financial and technological processes

Supports end-to-end processes, which can be either fully automated or involve manual operations at separate steps of the process



LOW-CODE TOOLS FOR DESIGN AND MANAGEMENT OF BUSINESS PROCESSES

1

Register of Business Processes

Centralized register of all company business processes

2

Business Process Designer

Support of standard BPMN 2.0 and DMN

3

User Task Management

Setup and processing of user tasks within processes

4

Business Process Monitoring

Detailed information about execution of each step of a business process

5

Analysis of Business Processes

Analytical dashboards for analysis of the employee and system performance

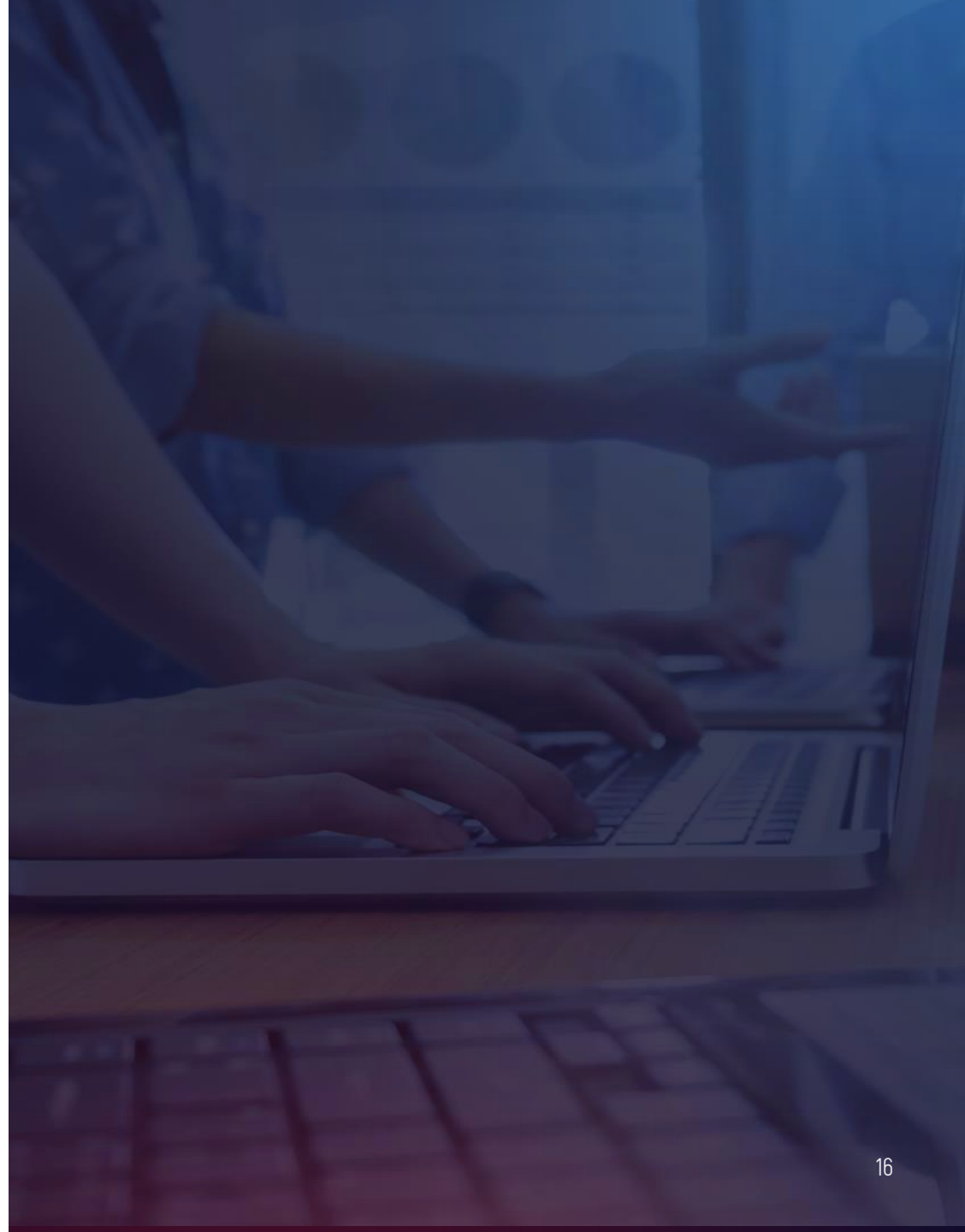
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Process Mining

Identification and analysis of existing processes

NO-CODE SETUP OF BUSINESS PROCESSES

- ✓ Electronic order (application) as a template for creation of orders of any type
- ✓ Customizable electronic documents of any type
- ✓ Extendable set of attributes
- ✓ Standard process steps
- ✓ Omnichannel logic
- ✓ Out-of-the-box basic functionality: version and history management, management of attachments, document editing, e-signature, etc.



PROCESS MONITORING



Process Monitoring

Quick search and viewing of process execution with the help of visual diagram



Highlighting

Visual highlighting of process execution and bottlenecks (i.e. steps with the largest deviation from the established metrics or KPIs)



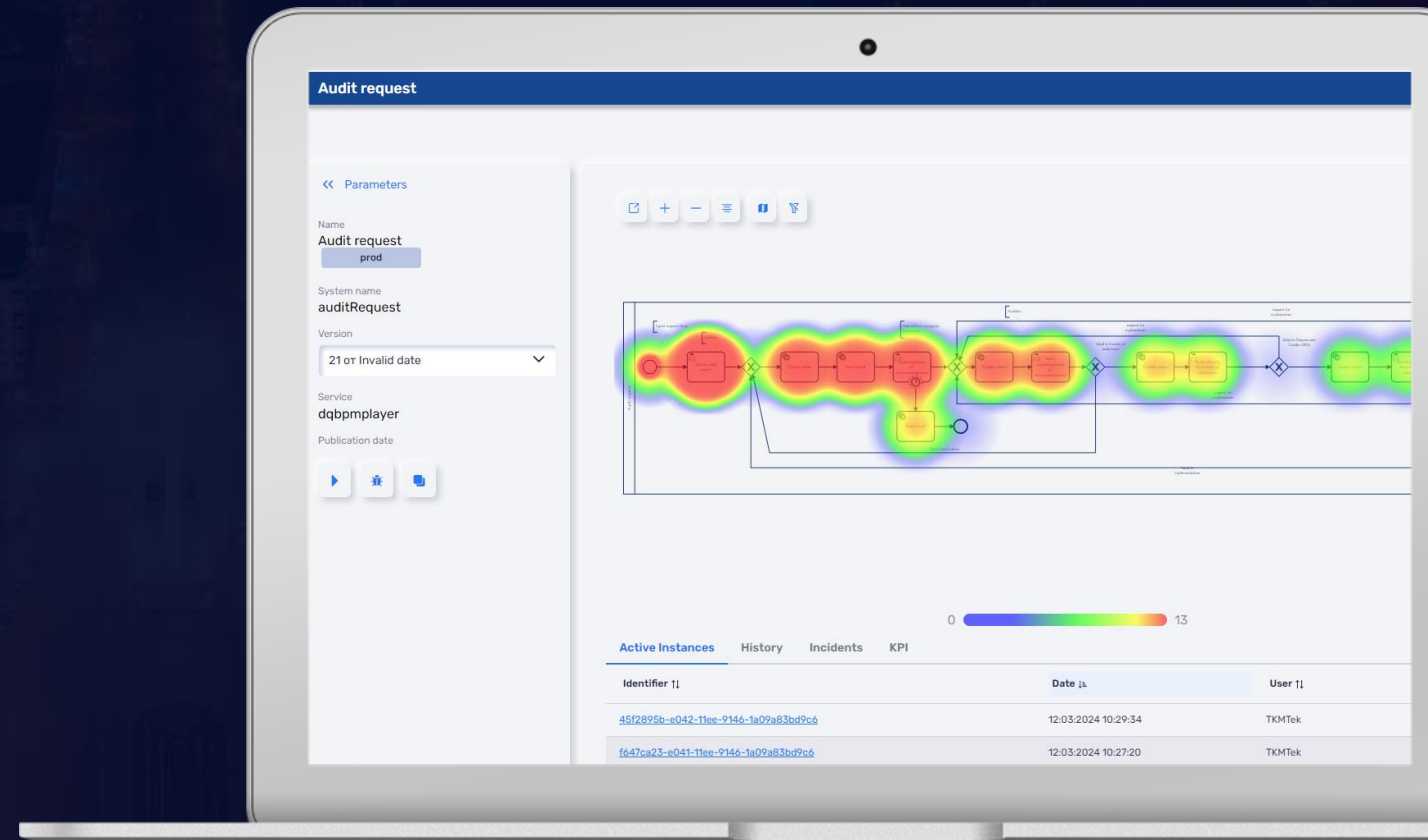
Tracking Process Details

Full information on process execution, including process parameters, incidents, compliance with KPIs



Process Management

Ability to stop and restart a process.
Migration of executed processes to a new version



USER TASK MANAGEMENT



A user can take tasks from a task pool on his own



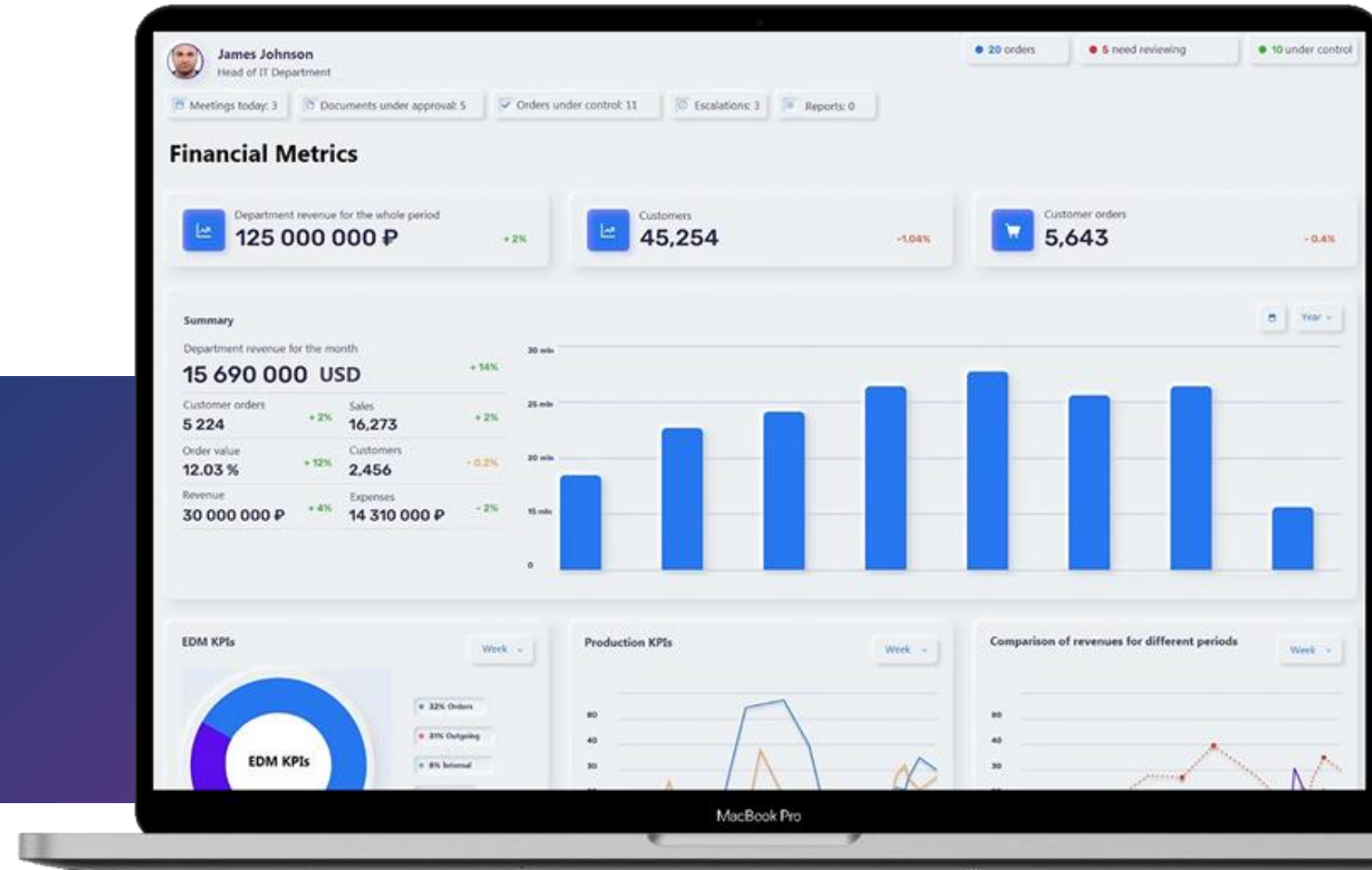
Tasks can be assigned to users by different algorithms (more than 10)



The user work is arranged through assignment of tasks, with the ability to track the task execution time, escalate and delegate tasks



The platform guarantees correct execution of the process without manual control and does not allow users to miss or skip necessary actions





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**UNIFIED DIGITAL
ENVIRONMENT &
DIGITAL CHANNELS**

EMPLOYEE'S / CUSTOMER'S PERSONAL (DIGITAL) AREA



Unified digital environment for employees and customers



Convenience and availability from any device



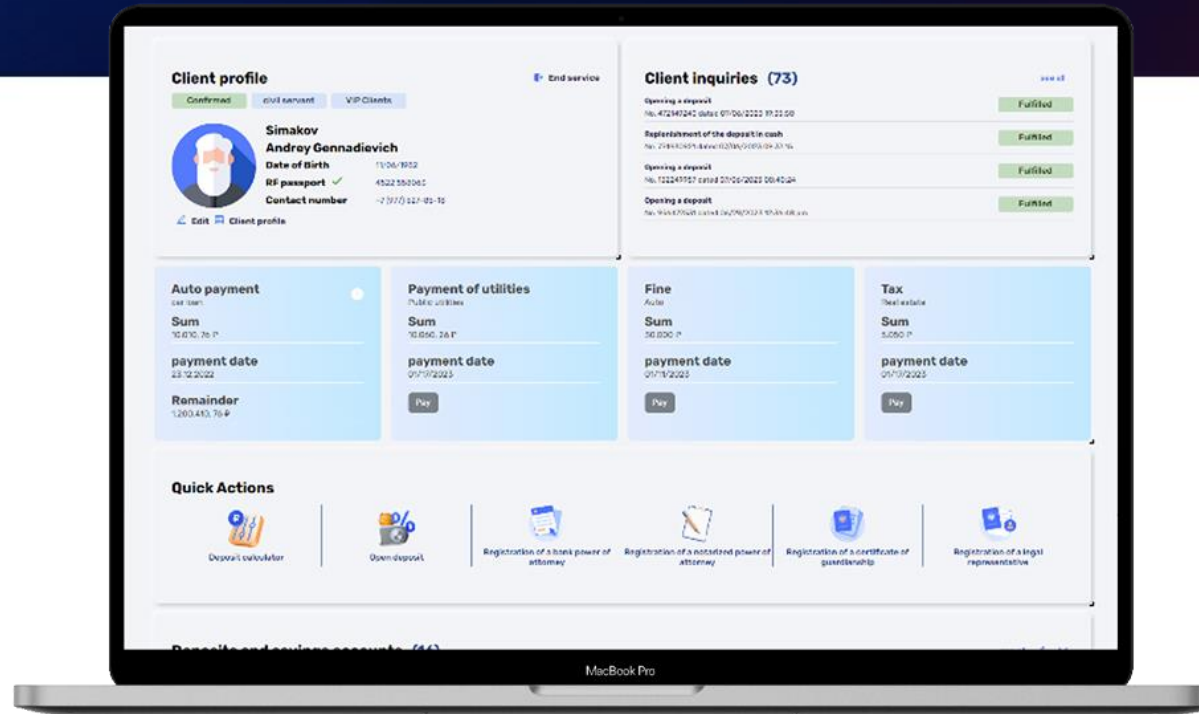
Native mobile apps for employees, customers, counterparties



No-Code tools for setup of the digital workbench for different user roles

ARRANGING THE WORK OF EMPLOYEES IN THE DIGITAL ENVIRONMENT

MOVE JOB FUNCTIONS OF **90%** USERS INTO DIGITAL CHANNELS



High performance and timely execution of user activities due to the use of assigned tasks

Guaranteed execution of business processes without manual involvement

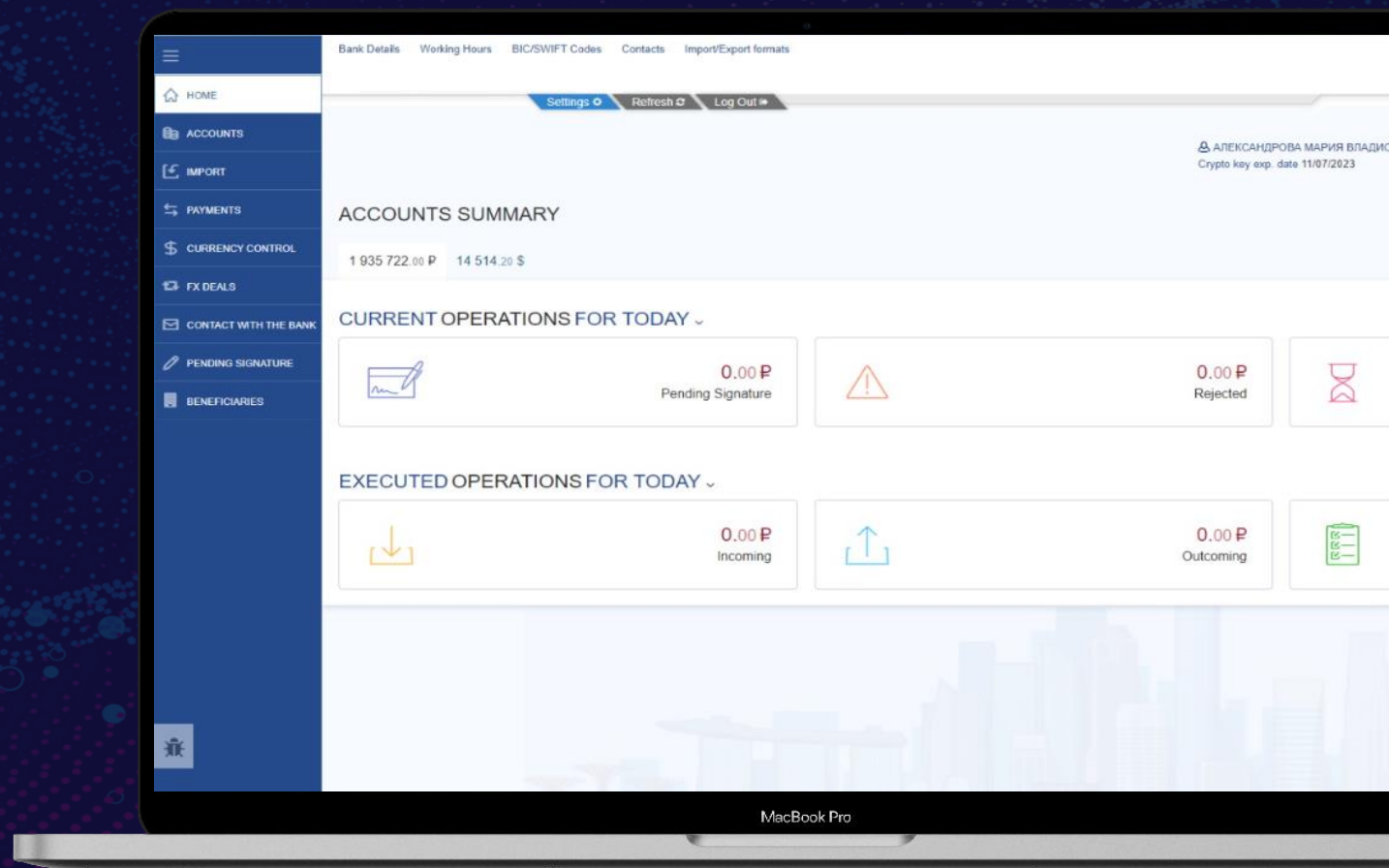
All necessary information is available in the single screen, without the need to switch between different systems

User-friendly intuitive UI, easy onboarding

REMOTE CHANNELS

BASED ON THE COMPOSABLE ARCHITECTURE AS THE KEY PRINCIPLE

- Implementation of specific functional blocks based on individual company requirements
- Independence and fault tolerance of all blocks
- Customizable design and adaptive interface
- Invocation of omnichannel business processes



CHANNELS COMPOSITION TOOLKIT



Special **low / no-code designer** for creation of any number of digital channels / personal areas in the drag-and-drop mode



A rich **palette of functional widgets** for setup of digital channels for different user roles and groups



Off-the-shelf **reusable UI components** (the canvas, menu, control panels, navigation blocks, etc.) for design of the engaging and effective UI / UX based on the company's brand book



Clear UX/UI design standards, patterns and style guides to ensure compliance with the company brand book.



SUPER APP

FOR MOBILE ACCESS

Super apps provide users key functions and access to mini apps. Native iOS and Android mobile app versions are supported.



COMPOSITION OF FUNCTIONS OF MOBILE APPS

- **Super App** is a ready-to-use application of the Digital Banking Platform which combines multiple user functions and makes them available to users via a single access point.
- **Mini Apps** are composed with the help of low/no-code tools of the Digital Banking Platform.



SECURITY AND ADMINISTRATION

- Access management
- Confirmation of transactions with SMS/PUSH codes
- Third-party authorization services
- Face ID
- Two-factor authorization
- Extended e-signature
- User management
- User settings
- Biometrics

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**INTEGRATION &
READY-TO-USE FUNCTIONAL
BLOCKS AND ACCELERATORS**



INTEGRATION PLATFORM

The solution ensures fast and high-quality support of integration tasks based on the universal integration process

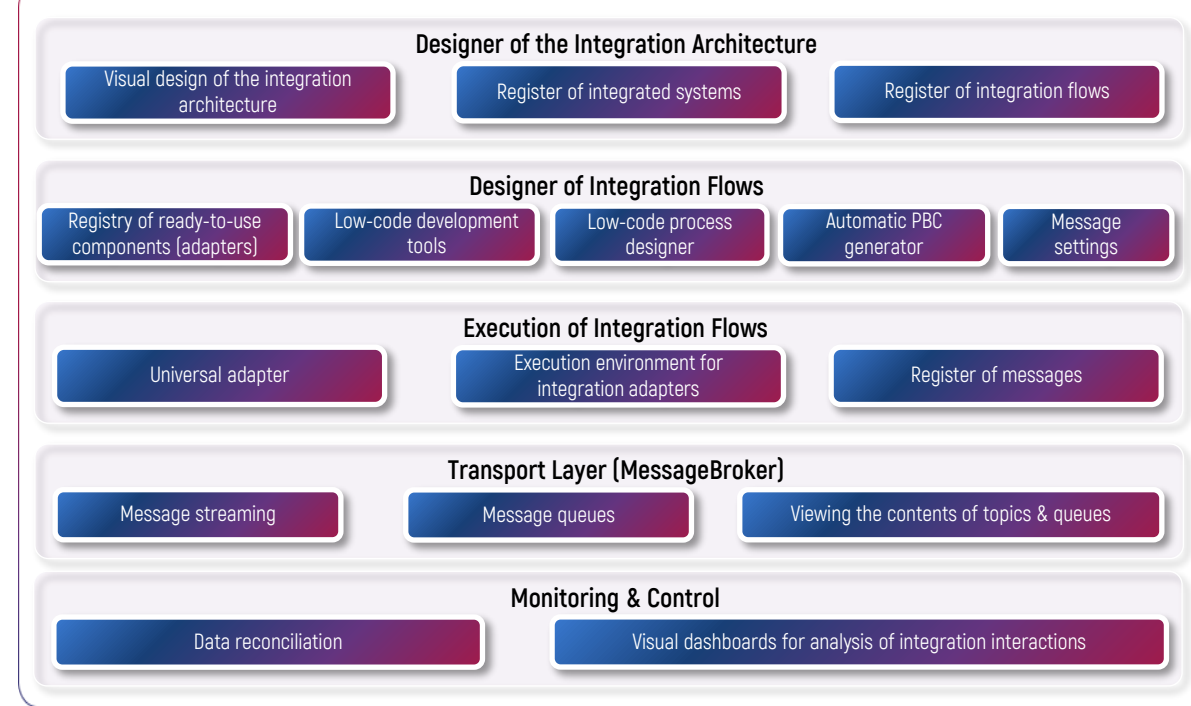
KEY INTEGRATION TASKS

- ✓ Creation of the unified environment for design and development of integration solutions for all systems in the customer's IT landscape
- ✓ Support of common standards of design, development and maintenance of integration solutions
- ✓ Standard process for assembly and deployment of integration solutions in the customer environment
- ✓ Registration of messages with their status and processing protocol to simplify integration analysis

SOLUTION ADVANTAGES

- ✓ Visual design of integration flows in the low-code designer
- ✓ Rapid one-click generation of adapters
- ✓ Transparent monitoring and real-time management
- ✓ 300+ ready-to-use high-performance integration components

SOLUTION ARCHITECTURE



20+ years in system integration

20+ message delivery protocols and channels

30+ out-of-the-box integration patterns

2 000+ messages per second in the most basic configuration



UI/UX DESIGN SYSTEM

The microservice-based low-code platform for simple design and development of modern user interfaces to create a better customer journey

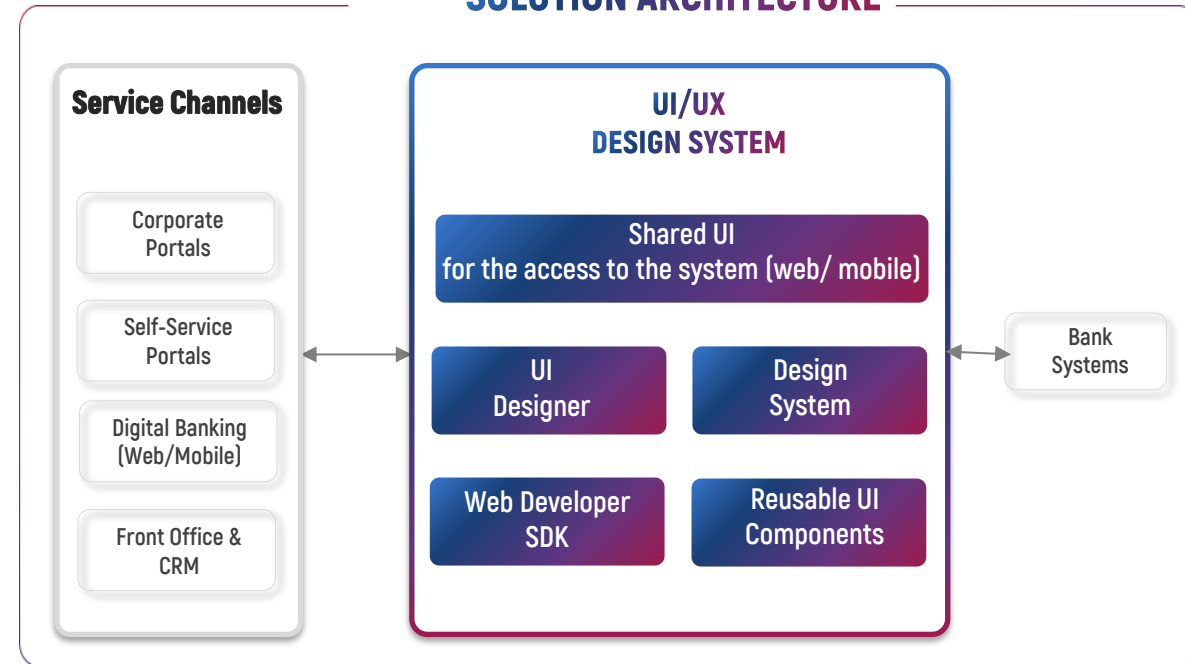
KEY UI/UX DESIGN TASKS

- ✓ Designing impressive and ergonomic UI / UX regardless of specific customer service channels (mobile or online)
- ✓ Easy generation of native iOS/Android mobile apps with the use of Low/No-Code tools
- ✓ Creating the digital channel UI based on strict UX rules and templates with the help of ready-to-use UI components and proven web and mobile technologies
- ✓ Making applications visually attractive and ensuring UX consistency in all channels

SOLUTION ADVANTAGES

- ✓ Quick creation of app pages based on customizable templates (data entry and table forms) and UI components
- ✓ Consistent design of all corporate apps, digital channels and front-office customer service solutions
- ✓ Use of clear UX/UI design standards, patterns and style guides to ensure compliance with the company brand book
- ✓ Easy development of native iOS and Android mobile apps

SOLUTION ARCHITECTURE



100+ UI design components, including complex search tools, widgets, etc.

20+ ready-to-use customizable templates of web interfaces

< 20 minute creation of app pages based on customizable templates₂₇



PRODUCT FACTORY

The solution supports centralized design, management, pricing and billing of company products, services, goods and complex offerings

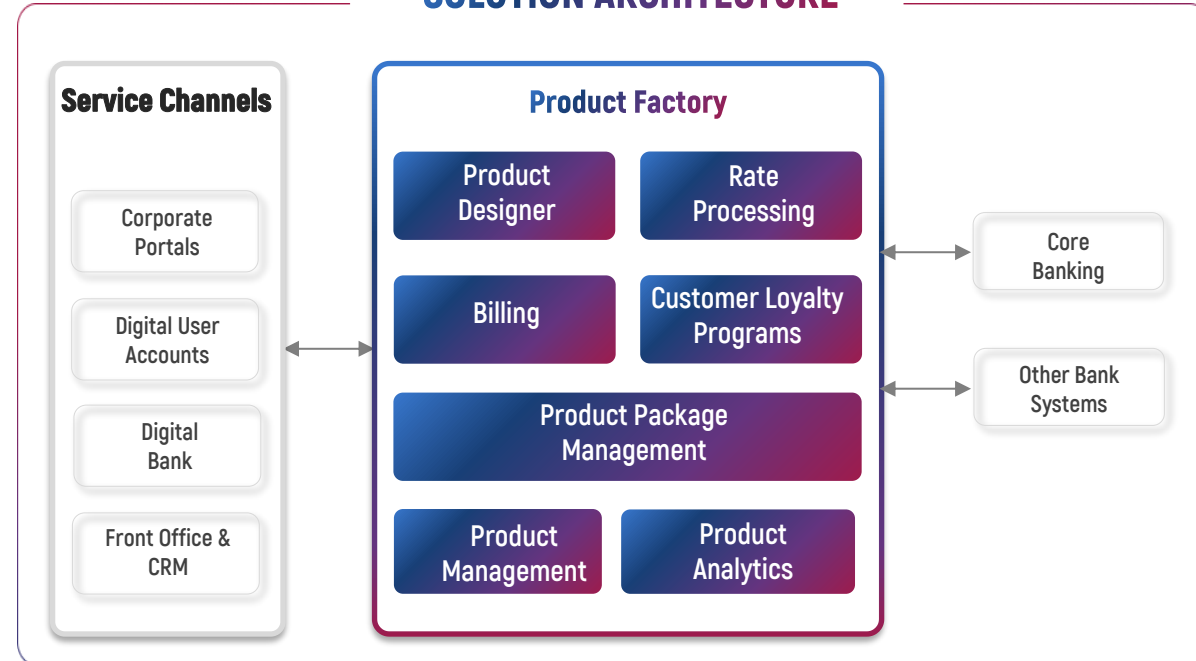
KEY PRODUCT MANAGEMENT TASKS

- Offer customers modern products, supporting customer loyalty programs and partner offerings
- Ensure performance of the product line despite of the growing complexity and diversity of products
- Ensure quick TTM for new products
- Retain customers and improve their loyalty with up-to-date relevant offerings

SOLUTION ADVANTAGES

- Centralization of product data from different source systems, which ensures transparent management of rates and products
- Support of products of any complexity, support of parametrization, inheritance, grouping, mass editing
- Independence from underlying core banking and other accounting systems
- Support of product packages with flexible setup of links, logic and rate calculation rules
- No-code management of products and rates, implementation of changes without coding
- Billing service with the support of calculation of complex fees taking into account transactions made over a selected period

SOLUTION ARCHITECTURE



7 retail banks use the product factory in their operations



product parameters and rate options to solve any business task

1 000 TPS for large retail banks



REAL-TIME VISUAL ANALYTICS

The solution is designed to visualize business data, create custom interactive dashboards, track dependencies and take decisions based on the information rather than probability

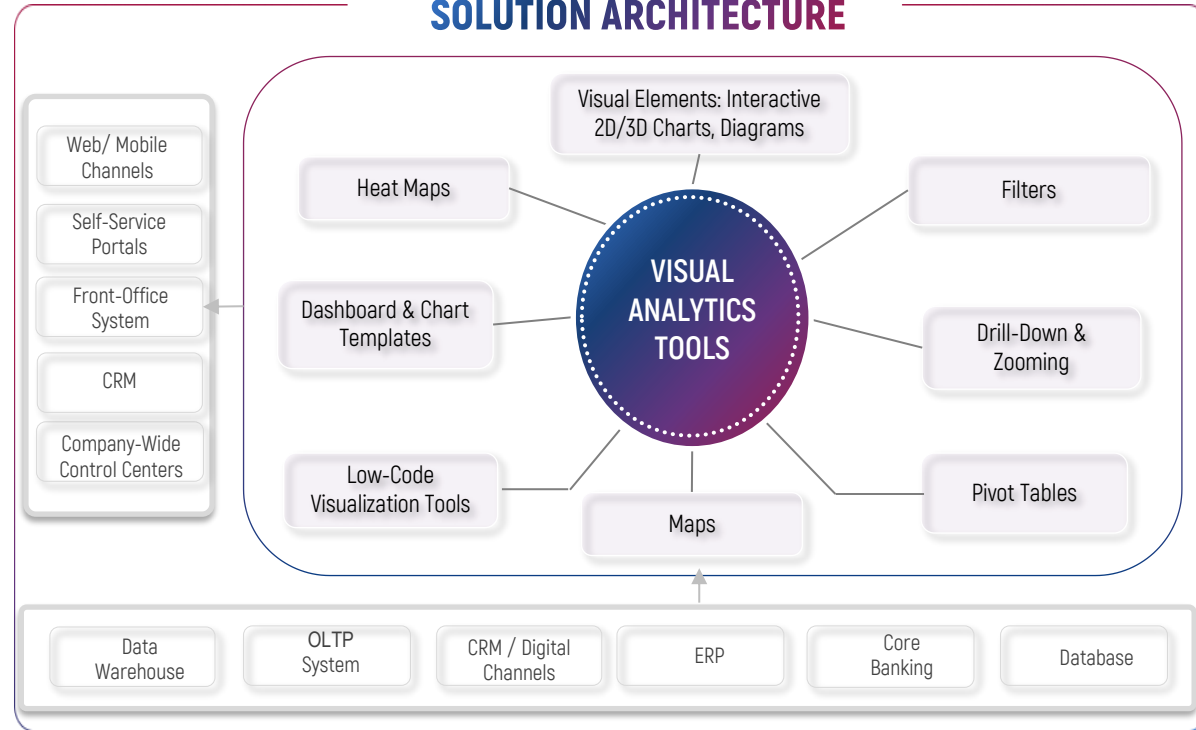
KEY ANALYTICAL TASKS

- ✓ Real-time analytics of data and processes with customizable visual analytical dashboards
- ✓ Visualization of data to help users solve their specific business tasks (monitoring of teams, KPIs, decision management, etc.)
- ✓ Business analytics and interactive data visualization to support informed data-driven managerial decisions & timely changes to business processes
- ✓ Implementation of centralized company-wide control centers and business monitoring systems

SOLUTION ADVANTAGES

- ✓ Easy design of custom visual dashboards without coding using convenient visual low-code development tools and pre-set elements
- ✓ Ability to investigate complex cases and dependencies zooming in and drilling down to any depth of detail
- ✓ Ability to integrate analytical tools as widgets into any user system: user workstation, corporate portals, digital channels, CRMs, ERP systems, etc.
- ✓ Combining multiple data sources in a single dashboard. Compatibility with any databases, OLTP systems, CRM, ERP, core banking systems and data warehouses.

SOLUTION ARCHITECTURE



400+ Preset visual elements: Gantt charts, 2D and 3D diagrams, heatmaps, tables, maps.

REAL-TIME

Generation of charts: average generation of custom charts in < 5 minutes

100 + Ready-to-use customizable dashboards



CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

The solution is designed to manage all stages of customer interactions, including customer acquisition, sale processes, customer services and analytics at businesses of any size

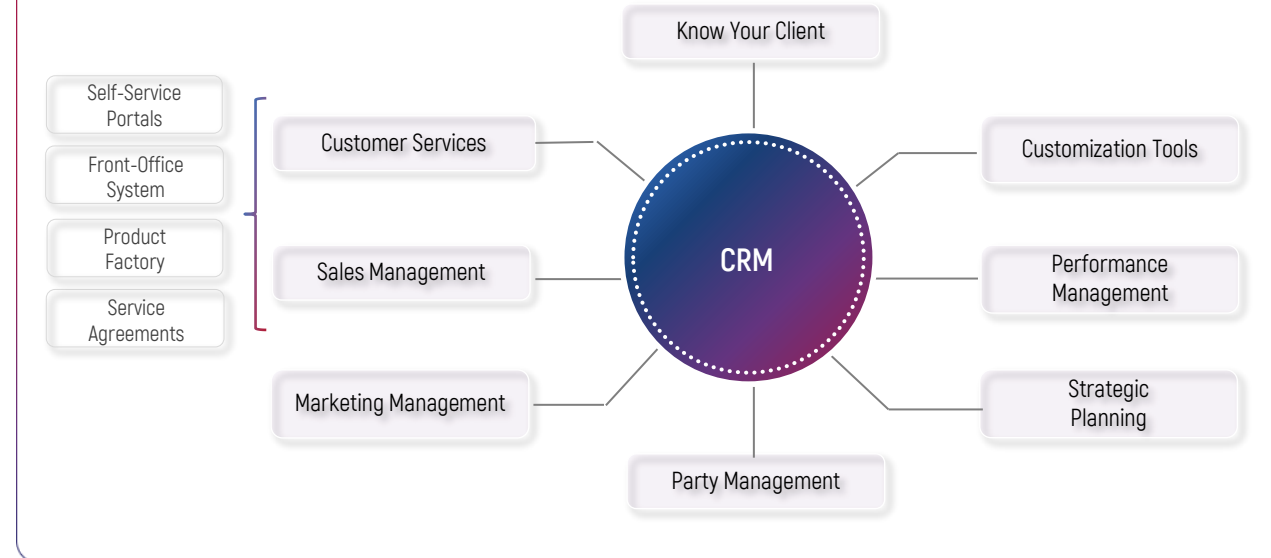
KEY CUSTOMER RELATIONSHIP MANAGEMENT TASKS

- ✓ Creation of comprehensive service processes, document workflows and analytics around traditional CRM systems. Replacement of legacy solutions
- ✓ Support of high performance and flexibility of CRM systems with the growth of corporate and public digital services

SOLUTION ADVANTAGES

- ✓ Flexible functionality for creation of any types of participants for all customer relationship processes
- ✓ Scalable CRM system for businesses of any size
- ✓ Built-in analytics for all customer relationship stages

SOLUTION ARCHITECTURE



7 out-of-the-box types of information files of process participant

∞ types of participants of interactions with customers and counterparties

< 1 minute to create a new type of process participant

6

**SUCCESS
STORIES**

SUCCESS STORIES

PROJECT

**Automation of loan origination
business processes at an
international captive auto bank**

PROJECT GOAL

Automation of the end-to-end loan origination business process: from entry of application data to loan disbursement, with a fully automated loan decision-making. Replacement of the outdated third-party solution.

RESULTS

Go-live of the modern loan origination system that successfully replaced a legacy solution.

SUCCESS STORIES

PROJECT GOAL

Design and implementation of a convenient tool for effective communication between employees of government authorities and financial institutions.

RESULTS

- The contractor implemented a convenient and functional personal area for employees of government agencies, which allowed them to effectively interact with financial institutions and send requests for information on money transfers by persons under investigation.
- This helped to speed up the transfer of data on fraudulent activities and contributed to more effective counteraction to cybercrime.

PROJECT

Implementation of the personal area for employees at a state authority

7

**UNIQUE
ADVANTAGES**

ADVANCED LOW-CODE & NO-CODE FUNCTIONS

The important feature of low-code tools is generation of the code in commonly accepted languages and frameworks, which are accessible to developers and allow for deep customization.



Fully-fledged BPMS



UI/UX design and generation tools



Tools for design and generation of data services



Tools for design and generation of integration adapters



Data visualization tools

INDUSTRY-RECOGNIZED TECHNOLOGY STACK

NO PROPRIETARY TECHNOLOGIES OR APPROACHES



Future-proof technology

- Security
- Performance
- Ability to expand



Wide community

- 95% of technological tasks and issues have already been solved in the industry



Ability to attract necessary experts from the market

- No HR barriers in the future
- Engagement of employees

JAVA/GOLANG

ANGULAR\REACT

BPMN 2.0/DMN

DEVOPS/DEVSECOPS

DOCKER

KUBERNETES

KAFKA

BENCHMARK TESTING

TEST RESULTS

5 000^{TPS}

stable and reliable

100 000

concurrent users

0.5 sec

average response time

DATABASE CONTENTS



The total database size after the data upload made 2.5 Tb

UNIQUE ADVANTAGES



COMPLETE TOOLKIT FOR THE MANAGEMENT OF BUSINESS PROCESSES

Automation at all stages of work with business processes: from process mining and design to their automation, monitoring and streamlining



MICRO FRONTENDS AND SUPERAPPS

This modern approach ensures quick composition of digital personal accounts (personal areas) for access to any digital company services in the form of web and mobile apps



HIGH PERFORMANCE AND SCALABILITY

to support digitalization of businesses of any size



NO-CODE

The platform provides a complete set of tools for digital transformation and legacy renovation of complex IT landscapes in a rapidly changing business environment



OMNICHANNEL ENABLEMENT

An electronic order (or application) is used as a base for the no-code setup of the omnichannel business logic



READY-TO-USE FUNCTIONAL COMPONENTS

for digital transformation and legacy renovation

MICROSERVICE ARCHITECTURE

KEY FEATURES



High availability &
Fault tolerance



Continuous deployment &
Independent implementation



Quick go-live,
Fast TTM



Interchangeability
microservices



Independence



High scalability &
Dynamic load balancing



Event-driven
architecture



Use of proven open
enterprise-grade technologies



Functional development
without coding



Focus of each microservice
on a single task

THANK YOU

digital@dq-solutions.com
www.dq-solutions.com



More about the [Digital Banking Platform](#)