MiRSiS

We lead innovative processes with the power of end-to-end digital transformation

MiRSiS At A Glance

- Founded by Mrs. Ayla Gül
 Düzgider and Mrs. Ece Kutlucan
 in 2008.
- of companies providing information technologies.
- Company Headquarter and R&D center is located in Istanbul, Ataşehir. The Bogazici University Technopark branch is located in Istanbul, Umraniye.

Mirsis Information Technologies is the flagship of the group of companies that provides custom software development, technology transformation, Project management and hardware maintenance.



As its name Odak Kariyer is the human resources company of the Group which is providing especially IT human source for the Financial institutions, manufacturing and service companies.

MIERA

Miera is system consulting and Support services provider of the group which is mainly targeting SME's and trading company which sales third party software's.

Our Timeline Azerbaijan Office Eureka **Project** EU R&D Tubitak Program **Project R&D Center Project Approval** Delivery Process Consultancy Service ISO 27001 & Company Delivery CMMI SVC/3 Founded Custom Software 2024 2008 2011 2014 2016 2022 2019 2021

About Us

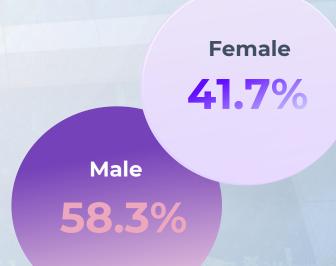




350+ Employee

> 26,000+ Candidates

Developers	200+
Analysts	70+
Test Specialist	10+
Architects	10+
Project Managers	10+
System Analysts	10+



Company Services









CUSTOM SOFTWARE DEVELOPMENT

We design, build, deploy and maintain software for a specific set of users, functions or organizations. Our efforts include app customization, app modernization, and app management.



We are overhauling the organization's network architecture, software, and technology systems that encompass how data is stored and accessed, impacting all people, processes, and technology.

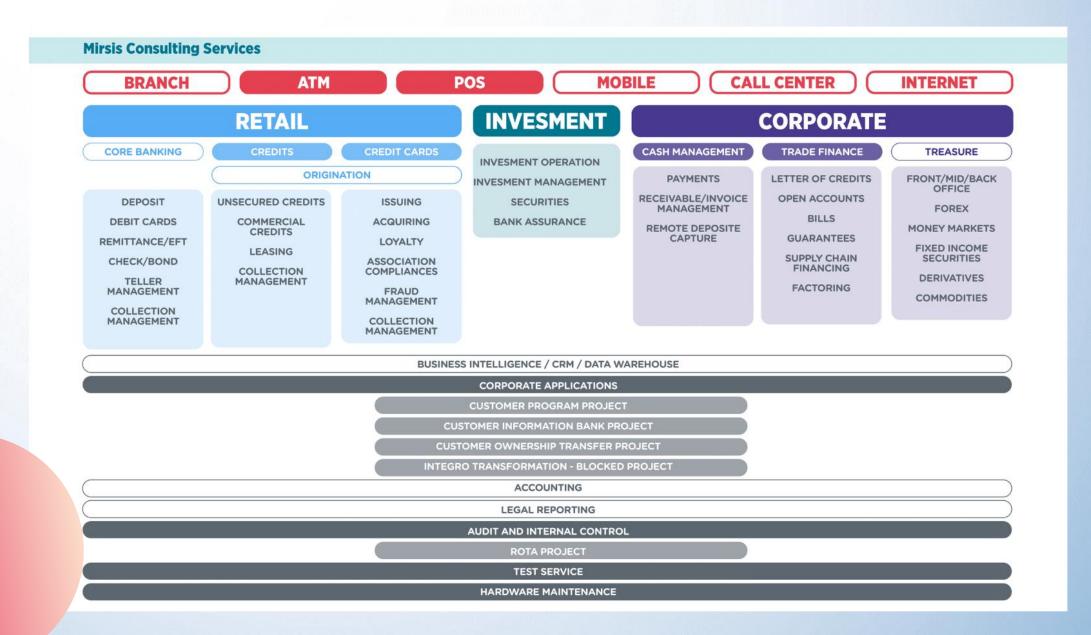
PROJECT MANAGEMENT

We are managing the software development process for companies that offering a range of financial products or services.

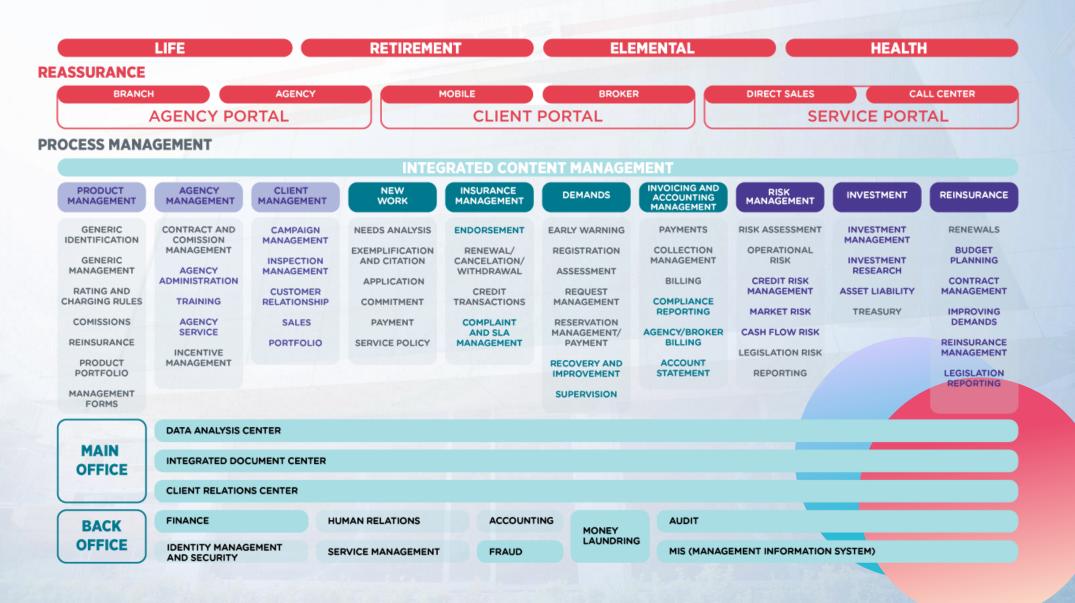
PROCESS CONSULTING

We assess the current processes and design the future states of them to optimize the outputs by digitalization.

Banking Domain Experience



Insurance Domain Experience



Client References





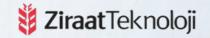


























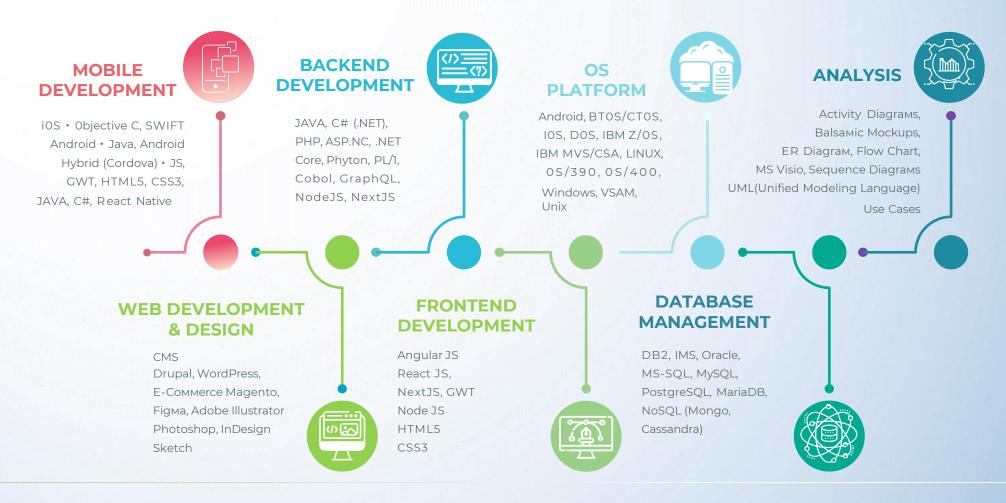








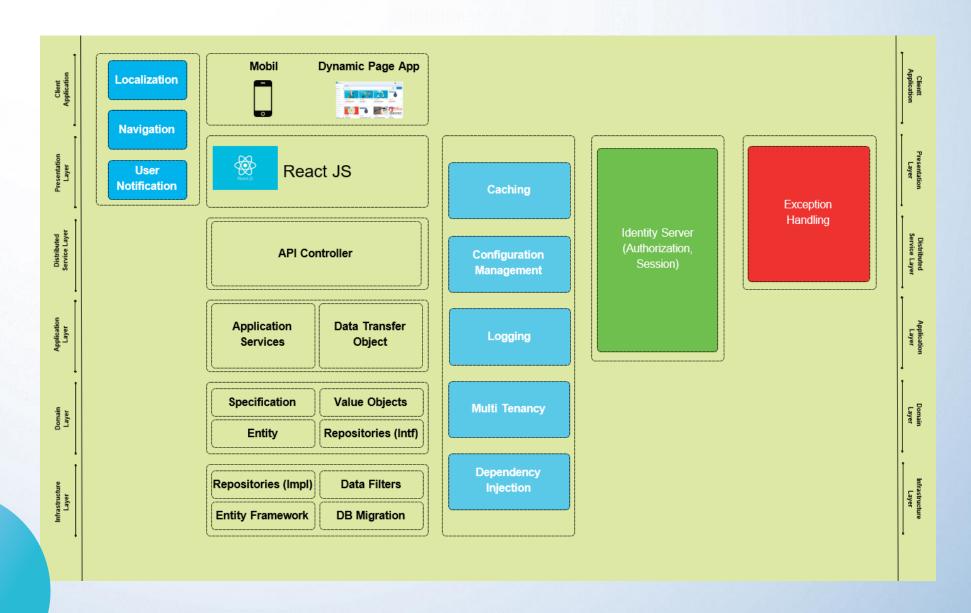
Languages & Platforms



MIRSIS COMPETENCIES BASED ON LANGUAGES AND PLATFORMS (%)

1% 2%2% 6% 11% 15% 15% 63%

Architectural Practices



Secure Software Development & AppSec



- Code Review
- Vulnerability Testing
- Data Protection



- · Out-of-Bounds Write
- Improper Neutralization of Input During Web Page Generation ("Cross-Site Scripting")
- Out-of-Bounds Read
- Improper Input Validation
- ("OS Command Injection")
- ("SQL Injection")
- Improper Limitation of a Pathname to a Restricted Directory ("Path Traversal")
- Cross-Site Request Forgery (CSRF)
- Unrestricted Upload of File with Dangerous Type
- Missing Authentication for Critical Function
- · Integer Overflow or Wraparound
- · Deserialization of Untrusted Data
- Improper Authentication
- NULL Pointer Dereference
- Use of Hard-Coded Credentials
- Improper Restriction of Operations Within the Bounds of a Memory Buffer
- Missing Authorization
- · Incorrect Default Permissions
- Exposure of Sensitive Information to an Unauthorized Actor
- Insufficiently Protected Credentials
- Incorrect Permission Assignment for Critical Resource
- Improper Restriction of XML External Entity Reference
- Server-Side Request Forgery (SSRF)
- ("Command Injection")



All possible execution paths and variable values, not just those invoked during execution.

Dynamic Analysis

Reveals subtle defects or vulnerabilities whose cause is too complex to be discovered by static analysis.

- Application Misconfiguration
- Directory Indexing
- •HTTP Response Smuggling
- •Improper Input Handling
- •OS Commanding
- •Remote File Inclusion
- SQL Injection
- •XML External Entities
- •XQuery Injection
- Content Spoofing
- •Fingerprinting
- •HTTP Response Splitting
- •Improper Output Handling
- •Mail Command Injection
- •Path Traversal
- •Routing Detour
- •SSL Injection
- •Injection
- •Cross-Site Scripting
- •Format String Attack
- •Improper File System Permissions
- •Information Leakage
- •Null Byte Injection
- •Predictable Resource Location
- •Server Misconfiguration
- •URL Redirector Abuse
- •XPath Injection

Secure Software Development & AppSec - Cont...

Hashing

 Hashed links, tokens, passwords and sensitive information

2 Factor Authentication & TOTP

 Mail activation, Timed OTP and username password

Permission Based Authorization

•Only relevant tenants and roles can access critical data

LDAP & Identity Server Integration

- ·Client user integration
- ·Organization tree import

Tokens & API Keys

•Every API attempt should be with JWT tokens

Blacklist & Whitelist

 When necessary, only selected domains are allowed

User Registration

- User is pre-registered with their email:
- Generic email domains like @outlook, @gmail, are disabled with a blacklist
- User receives a registration email with an activation link:
- Activation link contains an TOTP (Timed One Time Password)
- At the moment of registration, this password is created and stored in the database as a hashed string
- The activation password can only be created once, it cannot be changed afterwards, or until the password expiration date
- The password, hence, the activation link is only usable for 30 minutes (expiration time can be modified)
- Activation link can only be used once
- Every failed attempt at registration with expired or already used links are counted and logged
- User Registers their company and their own information with this activation link
- After confirmation by product admin, registration is complete

Identity Server

User Authentication

- Users are authenticated at login with JWT tokens
- Passwords in the database are stored as hashed strings, actual passwords are never stored

User Authorization

- Every API call is protected with permission-based authorization with the use of Bearer tokens
- Requests without authorization tokens are not permitted except for login and registration services
- Precautions for request header modifications like "tenant" information has been taken and are in testing/development
- exposure of used technologies, and frameworks

Vulnerability Testing

- Users were able to register themselves under any tenant/company by modifying the "_tenant" field in request headers. This vulnerability has been sorted
- Some framework specific services were given anonymous access, which let users to send create and delete requests without logging in. These services have been eliminated and reimplemented with secure authorization.
- Service response headers are audited for any exposure of used technologies, and frameworks

Multi-Tenancy

- Company admins and company users can only access their own company's data
- Any attempt at accessing other companies' data will be prevented and logged

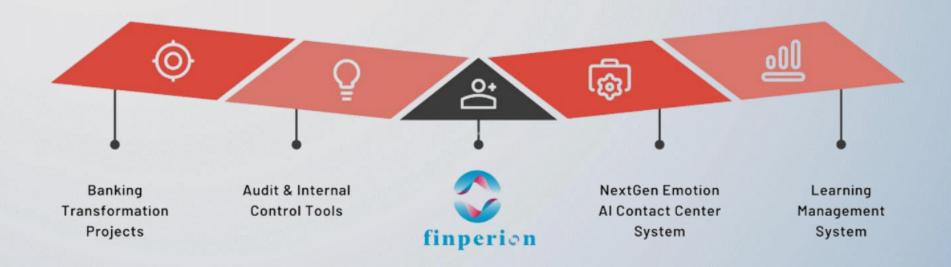
Product Admin Intervention

- Product Admins can oversee and manage clients in the system
- Users and companies can be disabled temporarily for security precautions

Python Forecasting Microservice

- Python microservice access secured by API Key implementation
- Keys can be instantly revoked if needed
- If a key leaks, there is no indication on where or how to use it
- Potential use of a cached system to reduce the reliance of a database and its maintenance

Digital Transformation Use Cases



Banking Transformation - Sample Projects

AKBANK

Loans Transformation Project

35 Developers

Transformed 500 features

Frontend & Backend Modernization Transformation From Cobol, to Java for Backend, to .NET MVC for Frontend



Mobile Banking

20 android 20 ios dev. 5-6 analyst, several teams

Transformed Money Transfers and Accounts modules

Transformed from Kotlin to Android Jetpack, MVVM, Kotlin Coroutines, Dagger-Hilt, Navigation, Flow, LiveData, Android Data Binding, Retrofit. Android Modular architecture used.













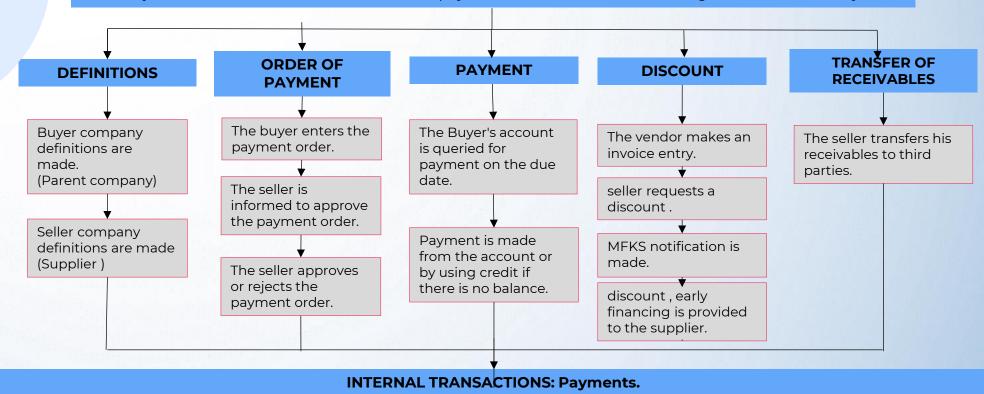
Banking Transformation - Sample Projects

- Front End Transformation 1000+ function transformation (Credits, Foreign Trade, Cash Management, Deposits)
- Letter of Guarantee Process Digitalization
- Open Banking for Retail Credit on e-commerce (ie. TOGG, Trendyol, Hepsiburada Finance)
- Commission Management System Transformation (All products)
- Commercial Credits Collateral System Transformation
- Commercial Credits Allocation Process Transformation
- Commercial Credits Pricing Projects
- Decision Support System Transformation
- Legal Management System for receivables
- Backend Technology Transformation Retail Banking

10K users Banks

Digital Payment Guarantee

Within the limit allocated to the buyer company, the buyer enters a payment order to the sellers with whom the buyer has commercial relations, and these payments are made with the bank guarantee at maturity.



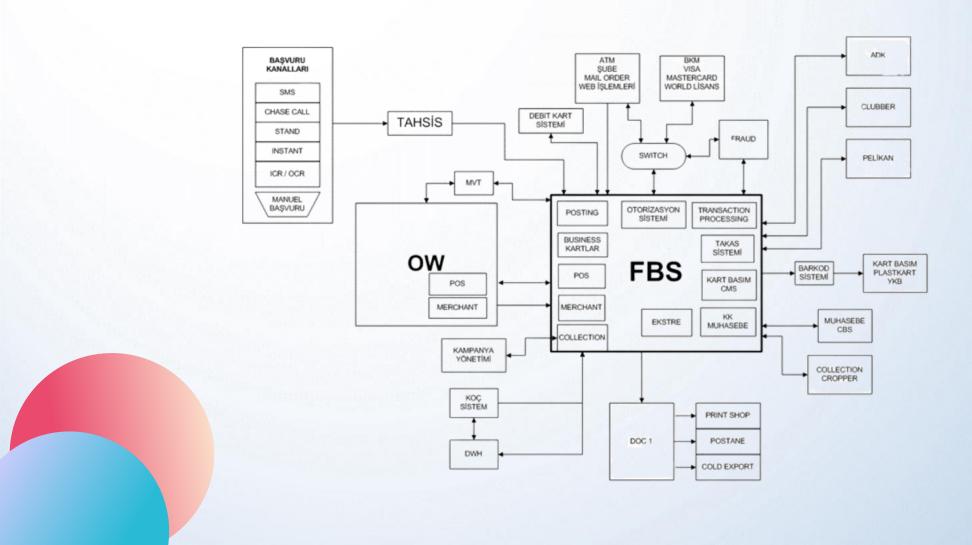
END OF DAY TRANSACTIONS: Cancellation of payment orders not approved by the seller within 3 days , profitability, legal reporting, rediscount transactions, MFKS transfer cancellations of invoices not included in the discount process

COBOL

BizTalk

.NET MVC

Card Payment System Transformation



Banking Transformation – FlexCube Upgrade Project







Banking transactions processed on Oracle FLEXCUBE every year



10%

Of the World's banked population possess an account powered by Oracle FLEXCUBE



600+

Oracle FLEXCUBE Customers



140+

Countries where Oracle FLEXCUBE is Present

We offer deep expertise in Oracle FlexCube through a team of ex-Oracle kernel developers and senior consultants.

Our capabilities include:

- Custom layer development, platform extensions and integrations
- Upgrade support, including version 14.7 and legacy versions (6–12)
- Technical and functional assessments and solution design
- Flexible team deployment: up to 10 skilled consultants available part-time or full-time

Banking Transformation – FlexCube Upgrade Project



Current projects include:

Profitability-Driven Enhancements:

Implementation of functional and technical improvements within FlexCube to streamline operations, reduce manual workload, and enhance revenue-generating processes - such as automation of fee computation and cross-sell enablement.

Reporting Solutions for Core Modules:

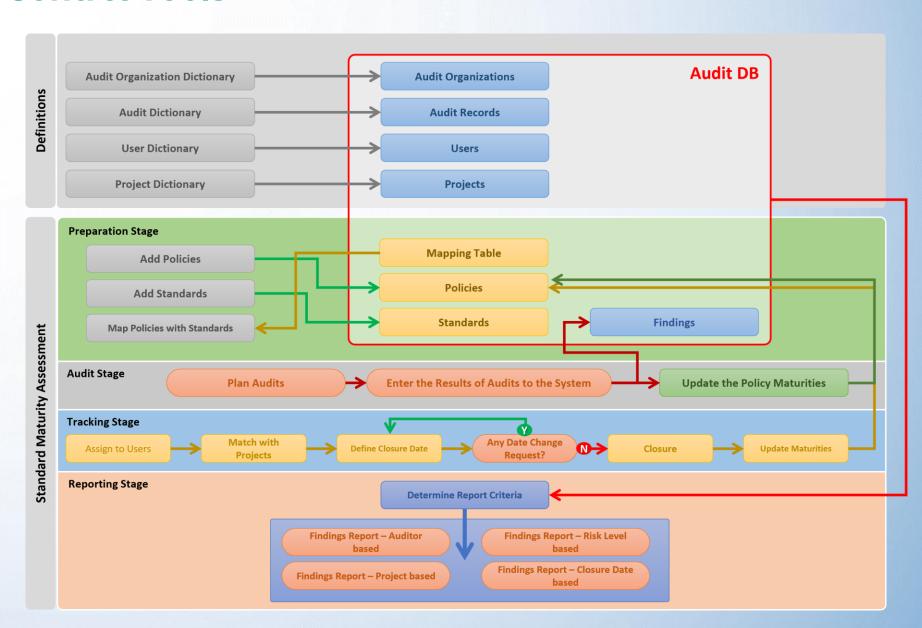
Reporting solutions for **Account**, **Customer**, and **Funds Transfer** modules - covering transactional histories, customer profiles, account balances, and payment flows. Reports can be tailored to meet internal KPIs, regulatory requirements, or real-time dashboard integrations.

Custom Web Service Development via FCUBS Web Services Framework:

Design and deployment of SOAP/REST-based services leveraging FlexCube's Extensibility Framework - enabling secure, upgrade-safe integration with external systems (e.g., digital channels, payment platforms, CRM), fully aligned with FCUBS data structures and process logic.

Audit & Internal Control Tools

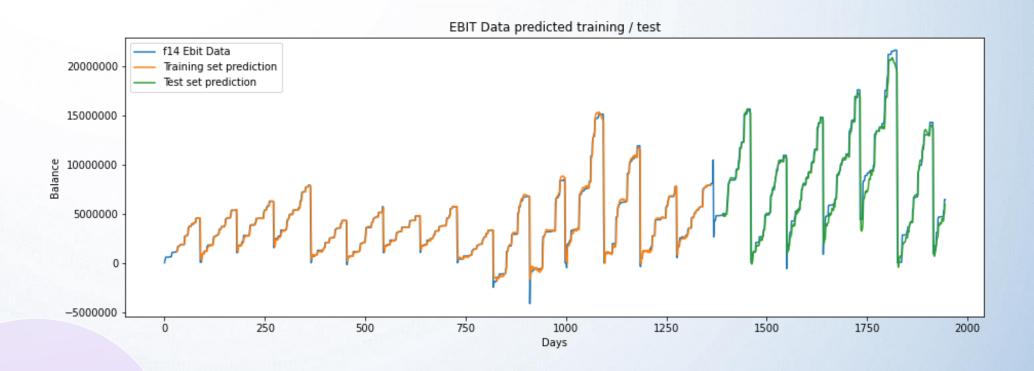
17K+ users
Banks



Finperion - Financial Risk Management

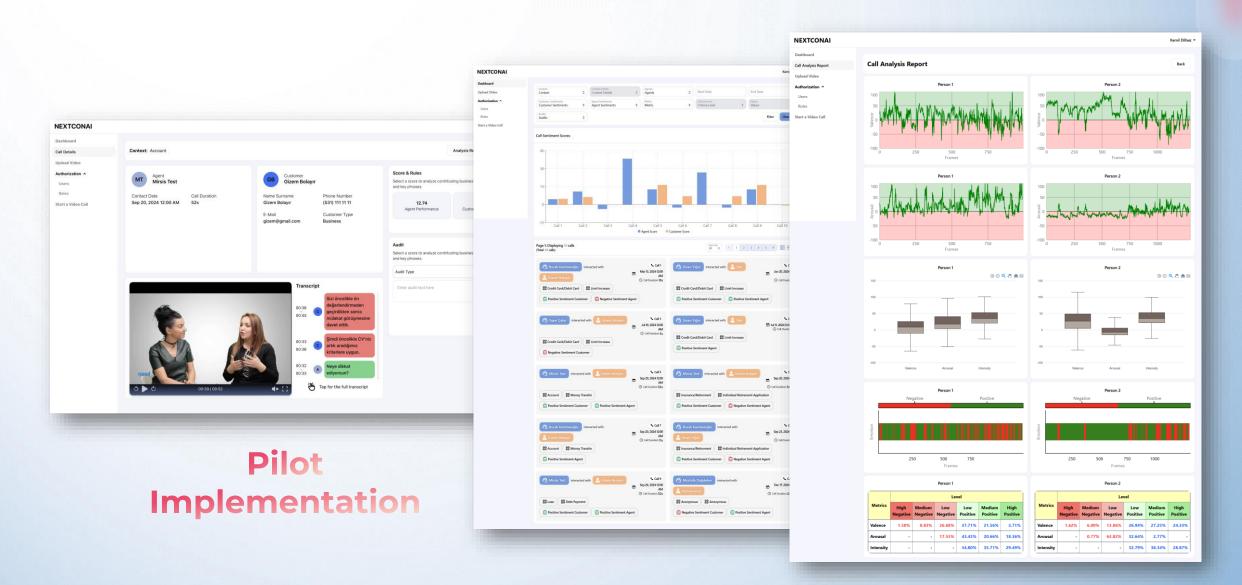


Finperion LSTM Time Series Forecast



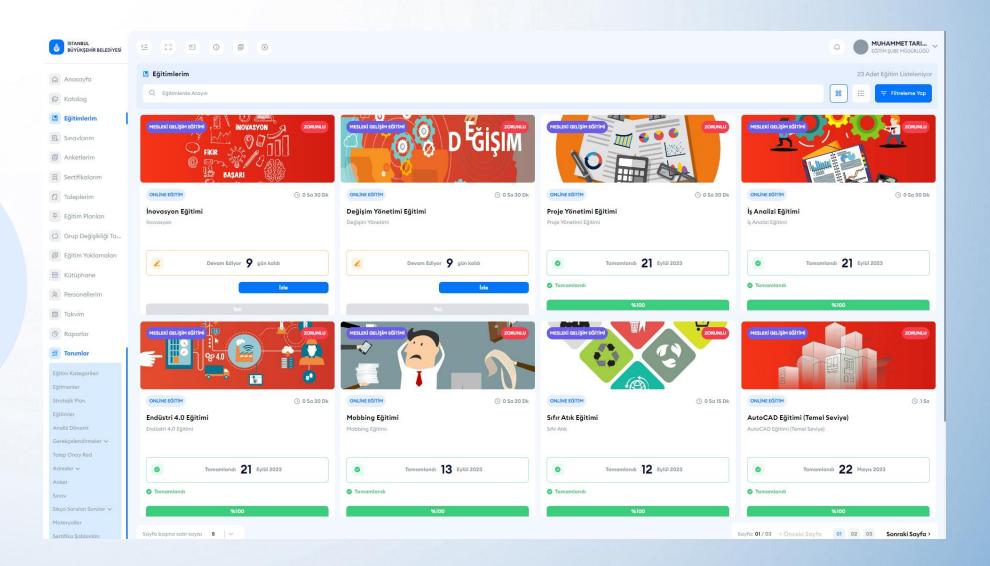
Normalized RMSE_Train: 3.054 Normalized RMSE_Test: 5.915

EU R&D Program – NextGen Emotion AI Contact Center System

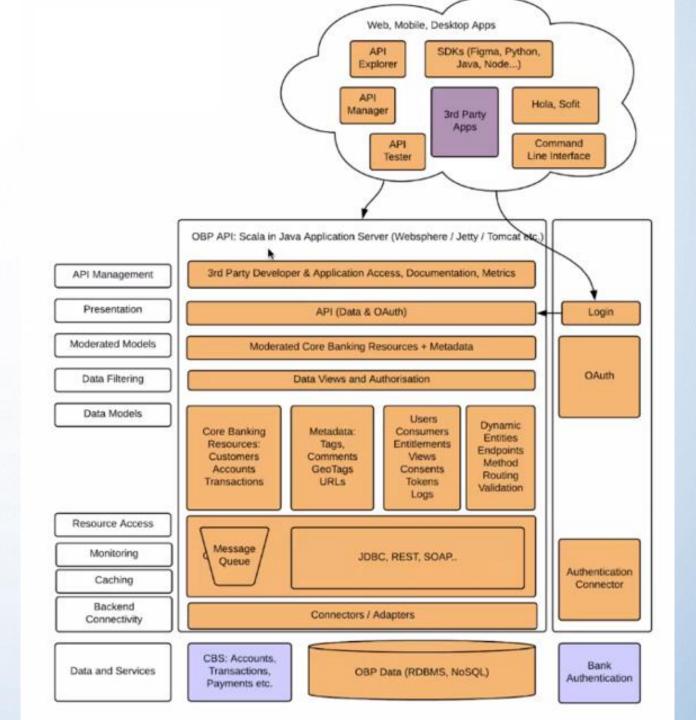


Learning Management System

91K+ users Corporate



Open Banking





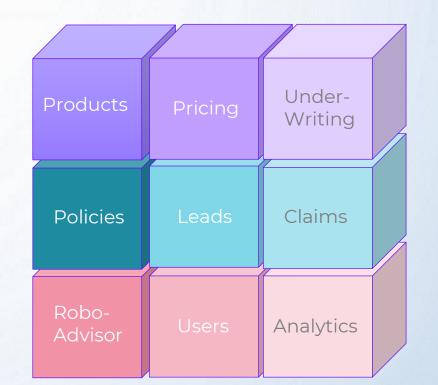
Core Insurance 500+ insurance API's covering any simple complex processes from an insurance business ecosystem

Micro-Sites

> Admin Portal

Agent Portal

Client Porta



Public Clouds

Private Clouds

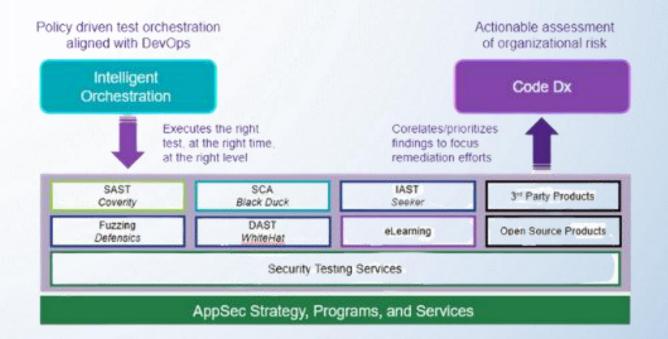
Hybrid Clouds

On-Site

The modularity and configurable approach of the platform allow to assemble API's and modules at record speed to deliver a tailor-made solution fitting exact client needs



AppSec



Intelligent Document Processing

Problems

Too much data entry

Possibility of human error

Including new documents to the coverage creates a lot of workload

Operational workload

Too much time for document processing

Reaching the structured data on documents

SAFIR X

IDP automates data entry from documents

Advantages

Reduces repetitive manual data entry

Provides a new layer against human error

Accelerates processes

Provides efficiency & scalability

Solution



CONFIGURABLE MODELS



VISUAL CLASSIFICATION
TEXTUAL CLASSIFICATION
INFORMATION EXTRACTION



STATE-OF-THE-ART
AI MODELS



FLOW DESIGN

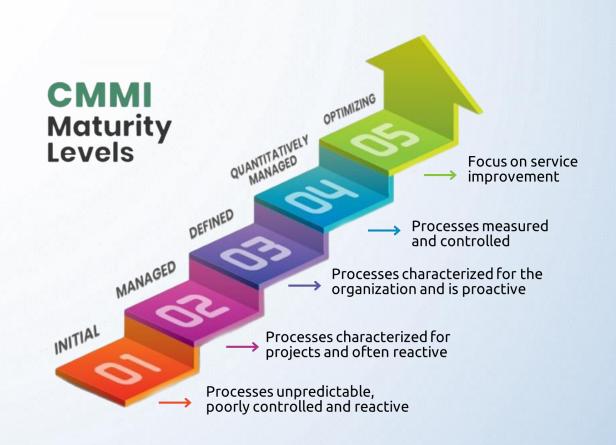


NO TECHNICAL EXPERTISE REQUIRED

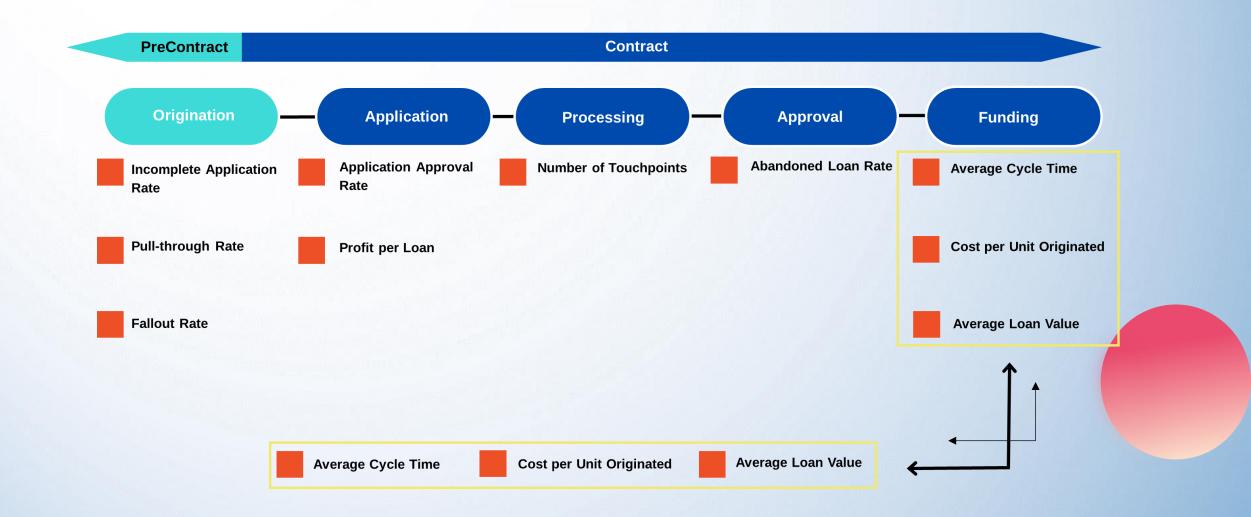
Process Consulting Service



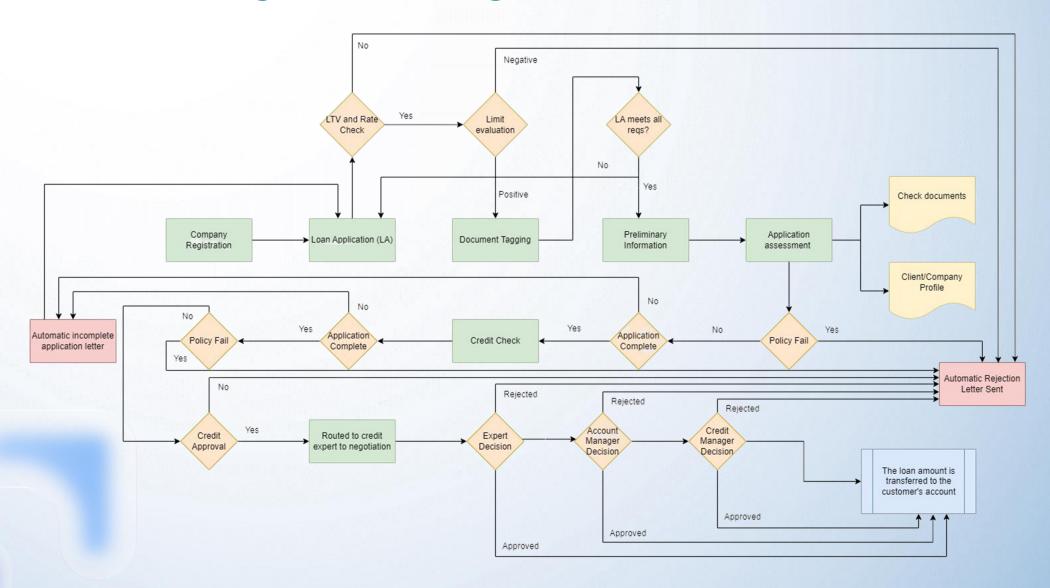
CMMI-SVC + SSD Level 3



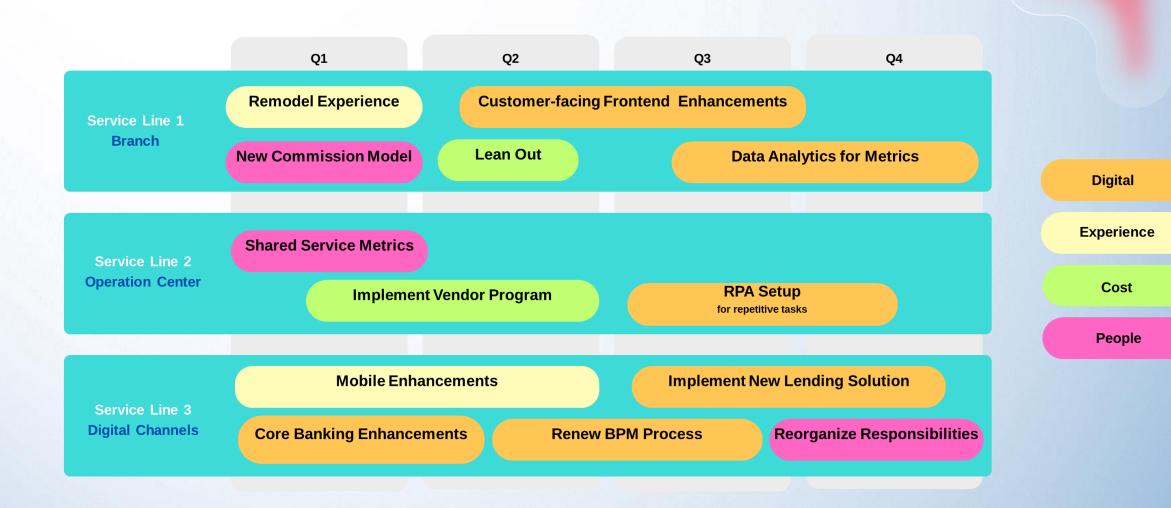
Process Consulting - Metrics

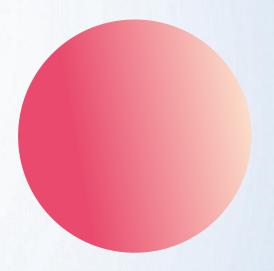


Process Consulting - Credits Origination BPM



Process Consulting - Sample Roadmap





Mirsis 15th Anniversary Video

https://tinyurl.com/mirsistestimonials



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