

## COGNITIVE ENGINE

PRODUCT SPECIFICATION

# Cognitive Engine

Faster Decisions. Lower Cost. Stronger Governance.

A next-generation Commercial Loan Origination System (CLOS) designed for financial institutions seeking to accelerate lending, reduce operational friction, and embed expert credit judgment directly into automated workflows.

## EXECUTIVE SUMMARY

### Core Capabilities & Business Impact

#### Extreme Configurability

Fully no-code configuration of products, workflows, and risk models. Credit policies can be adapted in real time without development cycles.

#### Integrated AI

Native automation for document analysis and financial spreading. Cognitive engines replicate expert reasoning with full traceability.

## Speed to Market

Implementation in 6–8 weeks (vs. 6–12 months for traditional LOS) using iterative configuration and stakeholder validation.

## Dynamic Profiles

Capture multiple legal entities, trade names, and ownership structures in a single view—essential for complex corporate clients.

## Regulatory Alignment

Risk models aligned with Basel III/IV standards, supporting PD, LGD, EAD, and RWA calculations across jurisdictions.

## Scalable Architecture

A single-instance platform scaling seamlessly from micro-loans to large syndicated facilities.

## INFRASTRUCTURE

# Secure Cloud Architecture

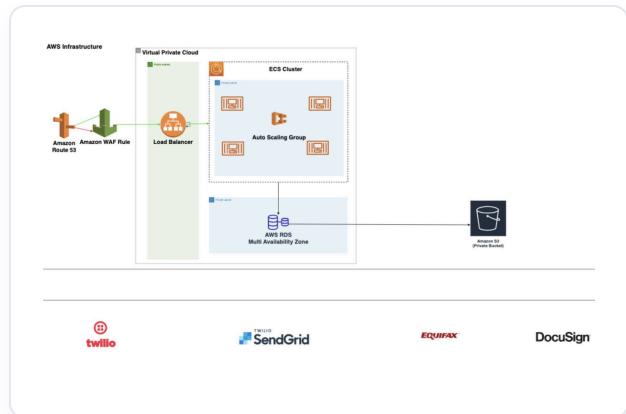
Cognitive Engine is built on a robust, auto-scaling AWS infrastructure designed for high availability and bank-grade security.

**VPC Isolation:** Private subnets for data persistence.

**Auto-Scaling:** ECS Clusters that adapt to load.

**Resilience:** Multi-AZ RDS deployment.

**Defense:** WAF Rules and Route 53 protection.



## PROCESS FLOW

# Standard Decision Model

## 1. Origination

Account managers initiate onboarding, structure facilities, and draft term sheets. Client prospects are profiled with full entity mapping.

## 2. Adjudication

Credit analysts perform financial spreading and risk assessment. AI assists with anomaly detection and pre-computed risk ratios.

### 3. Operations

Legal and operations teams finalize documentation, ensure regulatory compliance, and manage disbursement and post-funding obligations.

#### THE COGNITIVE LAYER

## AI-Driven Automation

AI is natively embedded across the platform to enhance efficiency without compromising control. We move beyond simple OCR to semantic understanding.

**Document Intelligence** Automated extraction and classification of data from PDFs and scanned financials.

**Financial Spreading** Normalization of unstructured financial statements into analyzable formats.

**Predictive Insights** Pre-computed ratios, anomaly detection, and KPI suggestions for analysts.

**Workflow Acceleration** Automated routing, validation, reminders, and compliance checkpoints.

#### OPEN ECOSYSTEM

## Seamless Integrations

Cognitive Engine is API-driven and open by design. It integrates seamlessly with major credit bureaus, core banking platforms (Fiserv, Oracle, Temenos),

and property registries via bi-directional synchronization.

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