



# Driving progressive modernisation for a leading South Asian Central bank

ISA | eMACH.ai Quantum

#### **Client overview**

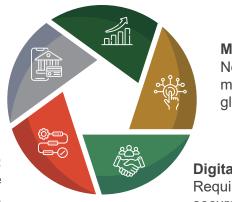
The client is the central monetary authority of one of the world's largest and fastest-growing economies, managing a balance sheet exceeding ₹2.35 trillion. As the country's apex financial institution, it is responsible for currency issuance, monetary policy execution, reserve management, financial market operations, and oversight of the national payments infrastructure. The institution plays a pivotal role in maintaining monetary stability, enabling government operations, and steering the economy through complex and evolving macroeconomic conditions.

#### Challenges

Legacy systems: Outdated, manual processes hindered real-time visibility and scalability.

**Regulatory demands:** Compliance with evolving monetary policies and ISO 20022 messaging standards.

> Stakeholder complexity: Integrating disparate systems for governments, banks, and the public.



**Macroeconomic volatility:** Needed dynamic tools to monitor financial health amid global uncertainties.

**Digital transformation:** Required a future-proof, secure system to handle surging transaction volumes



## Solution

The central bank partnered with Intellect Design Arena to deploy Intellect Quantum, a cloud-native, AI-powered central banking platform built on eMACH.ai architecture.

#### Key features:

- a. Real-time operations: Unified 350+ services across banking, currency management, and government transactions.
- b. Scalability: Benchmarked for 113M+ daily transactions and 30M+ ISO 20022 messages.
- c. Security: DevSecOps framework with multi-layered protection against cyber threats.
- d. Advanced Modules:

**Banking Services:** Uniquely designed online portal for commercial banks, the government and current circulation management with over 360 services in online

**Government Services:** Complete surplus and deficit management dashboard with highly flexible business rules configurator and Treasury Single Account, GST backbone, wide range of government payment and receipt services, direct to public payment for various government schemes

**Enterprise general ledger:** Real-time financial statements/balance sheet and integrated budget/FA

**Currency & Vault management:** Real-time monitoring of currency in circulation at the national level and comprehensive management of the currency lifecycle from planning to the destruction

Collateral Management: Advanced collateral pool and liquidity management

Credit/Market Operations: Support for wide range of monetary policy tools and market operations

**Depository & Public Debt Management:** Integrated public debt (Bond/Bill) management including underwriting Depository with complete lifecycle support for securities up to redemption

**Reserve Portfolio Management:** Advanced reserve portfolio management supporting FX, FI MM, Derivatives, Limits, IMF SDR management, ACU and many other aspects with In-built multidimensional risk analytics

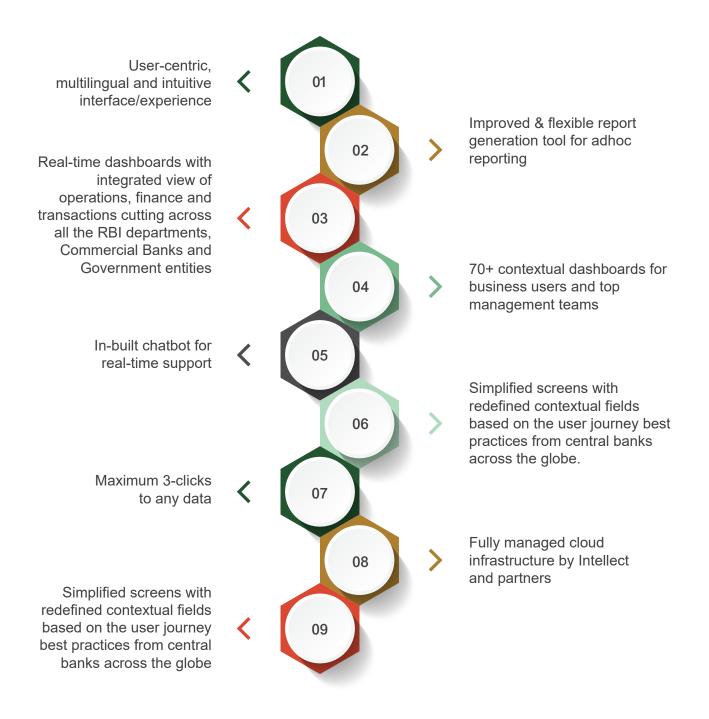
**Trade Finance:** Comprehensive monitoring of import/export LCs and export credit refinance **National Payment Systems:** Advanced payments & settlements engine for high-volume government payments and security collateral transactions processing





# **Transformation highlights**

- a. **From Legacy to Real-Time:** Replaced siloed systems with a single integrated platform (eKuber 2.0), enabling 24x7 operations like NEFT/ RTGS.
- b. **Digital Governance:** National govt. Payment and receipt system (to support 40MM+ transactions on a peak day) and automated Treasury Single Accounts.
- c. User Experience: 70+ contextual dashboards, AI chatbot support, and "3-click" data access.
- d. **Future-Proofing:** Cloud-native design allows seamless updates (e.g., adding 1,000+ government accounts per entity).
- e. Demonetization Support: Enabled rapid currency recalibration during economic shocks.
- f. Best-in-class User Experience:





### Metrics at a glance

Metric	Value
Key business components	60+
Advanced frameworks	22+
User Journeys	750+
Interface touchpoints	450+
Microservices	70+
Services in online portal	350+
Benchmarked to support	30M+
ISO20022 messages per day	30M+
Benchmarked to support	113M+
Transactions per day	113M+







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