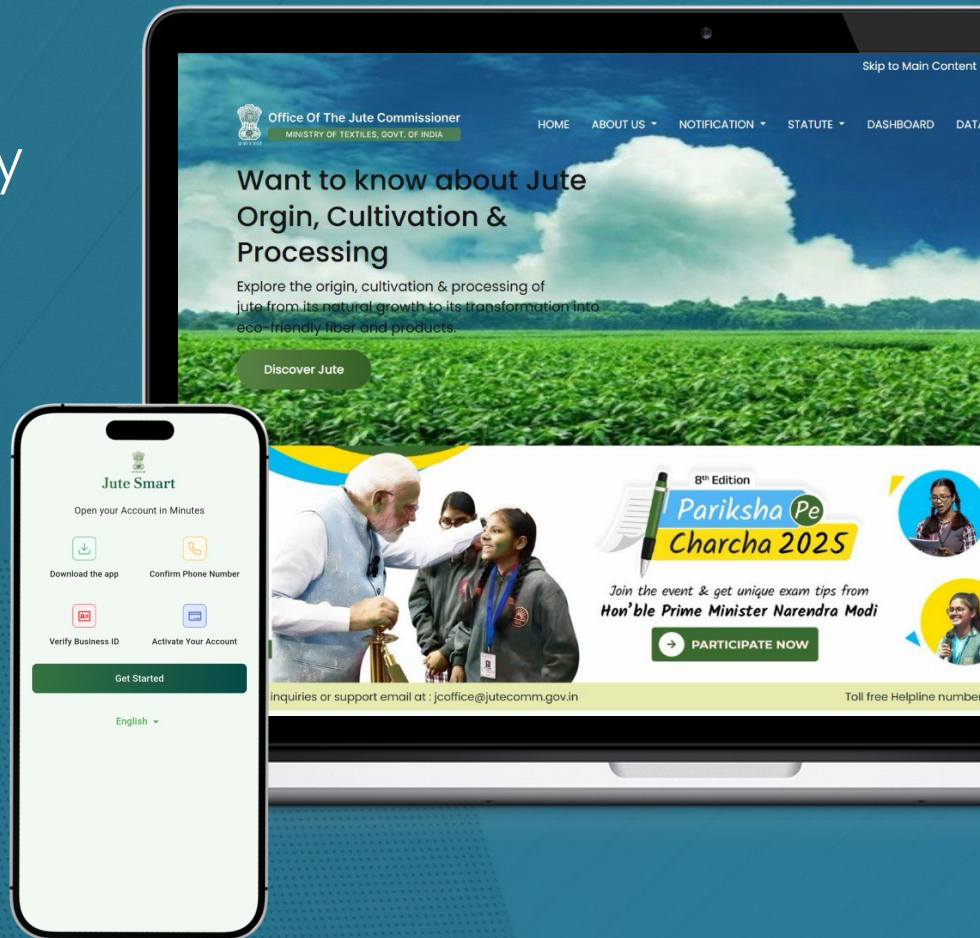


A CASE STUDY

Modernizing India's Jute Supply Chain with Jute Smart 2.0



SUCCESS STORY

Jute Smart 2.0

How Jute Smart 2.0 Enabled a 70% Boost in
Procurement Efficiency Across India

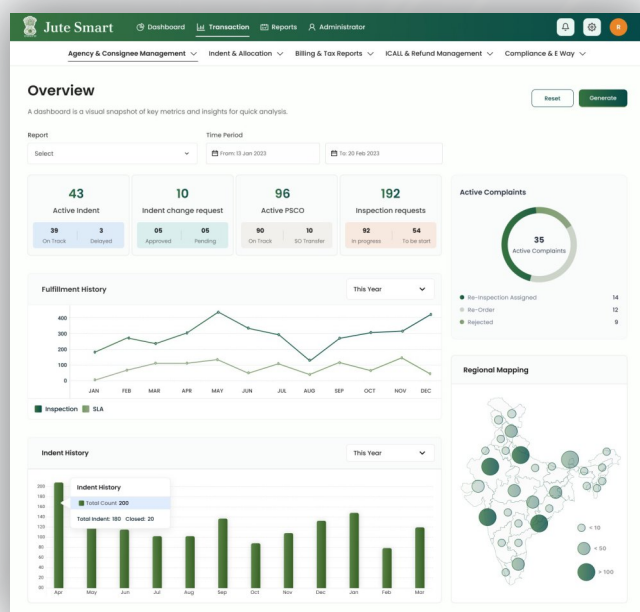
Company Name	Industry	Location	Application
Jute Commissioner	Textile	India	Web & Mobile Application

Background

The Office of the Jute Commissioner (JC), headquartered in Kolkata, plays a central role in regulating and promoting India's jute industry. From raw jute marketing to the production of finished jute goods, the JC oversees end-to-end operations under the Jute & Jute Textiles Control Order, 2016. It also advises on policy matters, ensures quality standards in collaboration with the Bureau of Indian Standards (BIS), and coordinates with 20+ State Procurement Agencies (SPAs) responsible for supplying jute sacks for food grain distribution across

Technologies

Technology tools and frameworks used



The Need for Transformation

The previous Jute Smart 1.0 platform was built on outdated technology, burdened with manual, paper-based processes. It lacked the ability to integrate with external systems such as the Railways (FOIS), logistics partners like CONCOR, and banking institutions. Security weaknesses, poor scalability, and fragmented workflows were stalling operations and increasing compliance risks. The leadership recognized the urgency and set out to modernize the entire ecosystem through a bold, technology-driven roadmap driven by Cubastion.

Challenges Faced

Business Challenges

India's jute procurement system spans SPAs, mills, inspectors, transporters, and consignees—each with critical roles. However, legacy bottlenecks impeded performance:



Operational Inefficiency

Manual approval of indents and payment reconciliations took weeks.



Lack of Quality Oversight

Absence of real-time inspection tracking led to frequent disputes.



Supply Chain Blind Spots

No end-to-end visibility across shipments and deliveries.



Compliance Complexity

Paper records made audits time-consuming and prone to errors.



Disconnected Stakeholders

SPAs, mills, and JC worked in isolated silos.

Technical Challenges



Rigid Legacy Architecture

Couldn't support the required throughput of 10 M+ transactions per day.



Security Gaps

Lacked multi-factor authentication, e-Sign, and secure digital transactions.



No External Integrations

Systems weren't connected with railways, banks, or logistics providers.



Mobile Limitations

Field inspectors lacked access to real-time reporting tools.



Fragmented Data

Siloed databases hindered process transparency and reconciliation.

Solutions

To meet these challenges head-on, Cubastion partnered with the JC to reimagine the procurement lifecycle. Jute Smart 2.0 is a cloud-native, microservices-based digital platform designed to bring agility, transparency, and scalability to jute procurement.



Microservices Architecture



Real-Time Workflow Orchestration



Robust Security



Seamless Third-Party Integrations

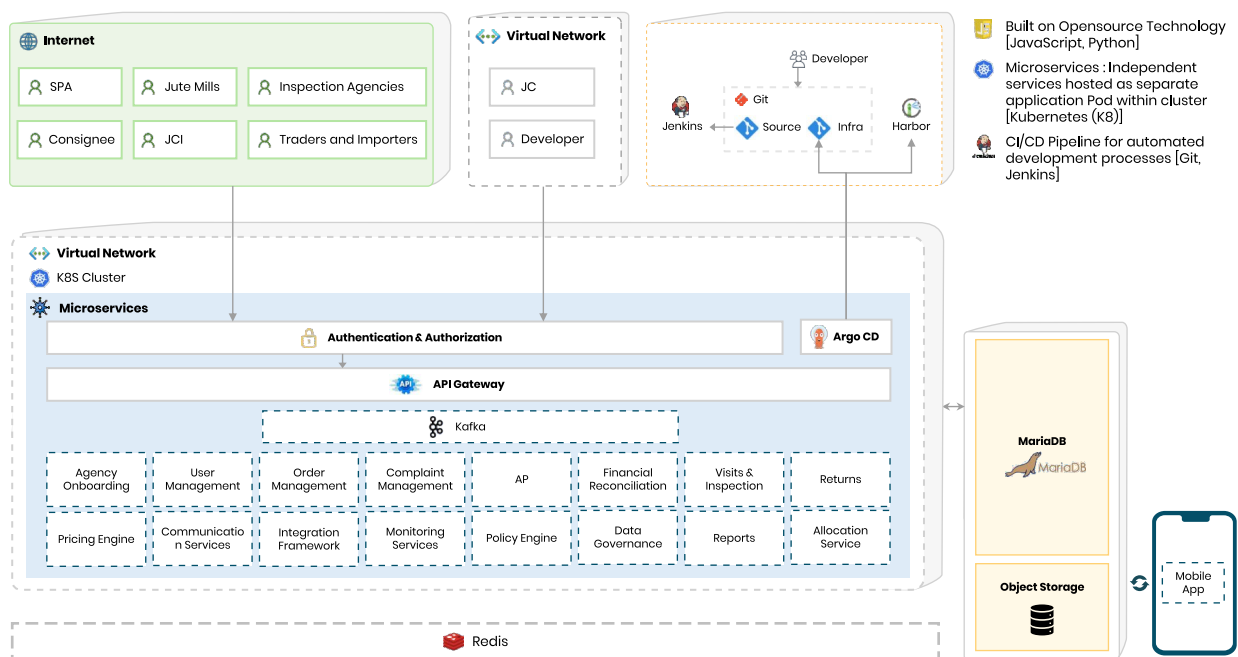


Mobile Enablement



Automated, Intelligent Workflows

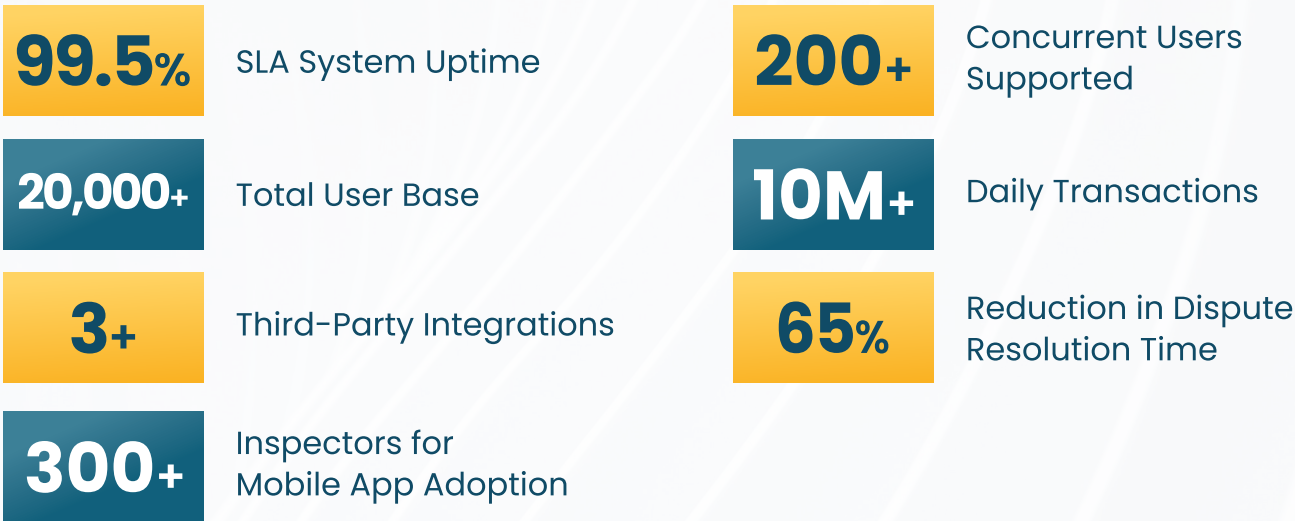
Architecture



Business Outcomes

The implementation of procurement digitization has enabled a fully paperless process from indent to invoice, streamlining operations significantly. As a result, indent processing time has been reduced drastically—from three weeks to just 48 hours—enhancing overall operational efficiency. Transparency has also improved, with real-time visibility into inspections, payments, and shipments, ensuring all stakeholders remain informed. Additionally, the system supports regulatory compliance by generating automated audit trails in alignment with the Jute & Jute Textiles Control Order. This transformation has fostered seamless collaboration across the ecosystem, uniting the Jute Commissioner, State Procurement Agencies (SPAs), mills, banks, and logistics partners within a unified digital platform.

Some of the Key Outcomes includes:



Key Areas of Expertise Demonstrated

- **Enterprise Architecture Redesign**

Replacing a legacy monolith with modular, scalable microservices.
- **Cloud-Native Development**

Designing the system for cloud scalability, reliability, and agility.
- **API Integration & Orchestration**

Creating secure, real-time interfaces with Indian Railways (FOIS), CONCOR, and banks.
- **Process Digitization**

Converting multi-stakeholder workflows to end-to-end digital formats.
- **Field Mobility Enablement**

Equipping inspectors with real-time, mobile-first inspection tools.
- **Security Engineering**

Implementing robust security protocols like MFA, RBAC, and digital signatures.
- **Regulatory Technology (RegTech)**

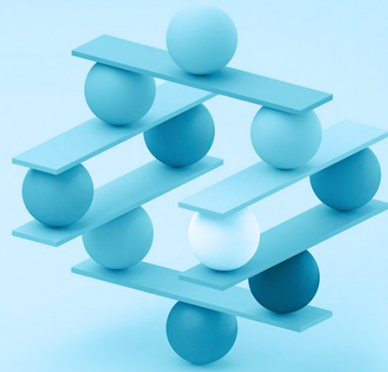
Building automated audit trails for full compliance with government regulations.
- **Data Strategy**

Enabling real-time, actionable insights through unified dashboards and reporting.

About Cubastion

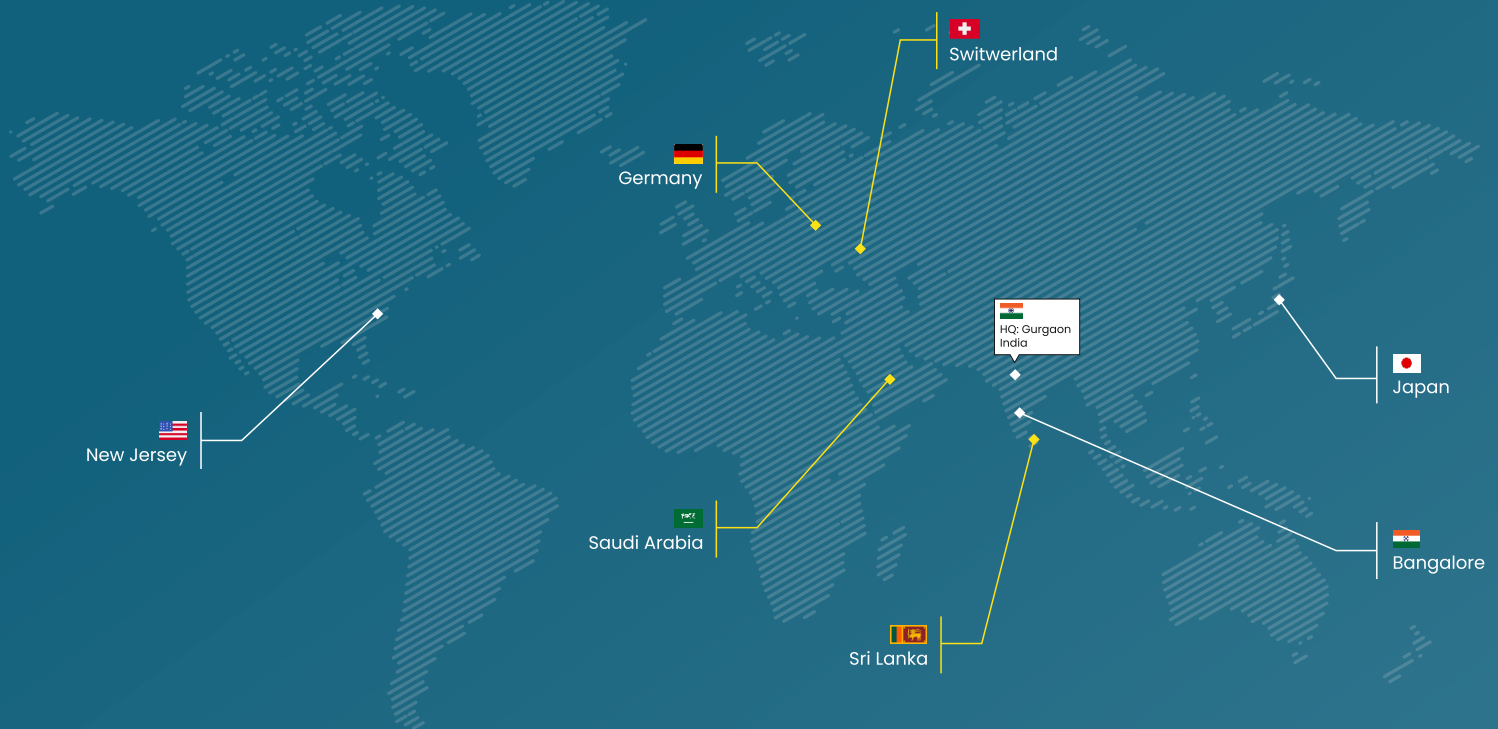
Cubastion helps global companies run their mission critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across platforms.

Some of the world's largest companies and Indian Public Sector Undertakings trust Cubastion to deploy services to drive new levels of performance, competitiveness, and customer experience.



Over 18 years, Cubastion has built solutions that impact over 500+ million people around the globe working in different demographics across different cultures. Learn more about Cubastion at www.cubastion.com

Contact Cubastion today to embark on your digital transformation journey.



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