



# Pulp Control Tower

Prepared for **Aditya Birla Group - Grasims Industries**

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## Executive Summary

Grasim Industries Limited, part of the Aditya Birla Group, is one of India's top publicly listed companies, established in 1947. Initially a textile manufacturer, it now operates in multiple sectors, including viscose staple fiber, chemicals, cement (via UltraTech Cement), financial services (Aditya Birla Capital), and renewable energy (Aditya Birla Renewables). Grasim is also entering the decorative paints market with its brand Birla Opus and has launched Birla Pivot, a B2B online marketplace for building materials. The company reported consolidated revenue of ₹1,30,978 crore and EBITDA of ₹20,837 crore in FY 2024.

{param} offers a B2B commerce platform, powering enterprises to streamline and digitalise information exchanges with all stakeholders across multiple organisations. {param} enables a seamless sharing of documents and updates related to purchaser orders, invoices, and payments. Its low-code tool enables the quick design and rapid deployment of approval workflows for any validations from respective stakeholders. The web3 semantics and knowledge graph provisions of instant reconciliations at a line item level and give real-time status visibility on production and dispatch.

**The Pulp Control Tower project aims to enhance Grasim Industries' supply chain management by providing comprehensive visibility and control over outsourced manufacturing, import shipment tracking, and domestic logistics. The solution includes real-time data synchronisation, quality checks, inventory management, and advanced scenario analysis. It ensures seamless integration with existing ERP systems, proactive issue resolution, and efficient supplier coordination, leading to improved operational efficiency and cost savings. The project covers critical aspects such as S&OP planning, production monitoring, and spend analysis.** The data exchanged is in the machine-readable format, enabling auto validation of invoices, and tracking of manual errors and missing documents, thus reducing the turnaround time. The use of permissioned blockchains ensures that data is only shared with other stakeholders on a need-to-know basis.

We sense the synergy in this partnership with Grasim Industries. We have come up with a comprehensive proposal, to harness the unique abilities of blockchain to seamlessly exchange commerce documents amongst various stakeholders on a highly scalable platform like {param}. We appreciate Grasim Industries for having taken up steps in this direction towards digital transformation and looking forward to making a valuable contribution to their business.

## About {{param}}

{{param}} is a pioneer in low-code solutions for multi-enterprise collaboration. Our platform enables swift app development, streamlines supply chain processes, and enhances decision-making. With a Smart Data Lake Platform and Generative AI, {{param}} transcends workflow digitisation, offering intelligent enterprise app development for seamless collaboration and data-driven efficiency. Key features of {{param}}.

- **SCM aware Low Code Tool:** Tailored low-code tool addressing intricate supply chain management needs for optimal performance.
- **Multi-Enterprise Collaboration:** Seamlessly fosters collaboration across multiple enterprises, enabling data sharing and enhancing supply chain efficiency.
- **Data Lake / Knowledge Graph:** Empowers enterprises with advanced document storage, management, and analytics for informed decision-making.
- **Supply Chain Applications:** Customisable Pre-build application for various use cases across different industry segment for rapidly adaption.
- **Proprietary Blockchain:** Built on a proprietary commerce blockchain for secure enterprise interconnect, data exchange, and trust.

### Value Proposition to enterprises:

{{param}}'s value proposition to enterprises lies in its comprehensive suite of supply chain collaboration solutions, tailored to address the evolving needs of modern businesses.

Through **intelligent supply chain collaboration**, {{param}} facilitates seamless communication and coordination among various stakeholders, optimizing processes and driving efficiency.

The platform **enhances cross-enterprise visibility**, providing real-time insights into supply chain operations across the entire ecosystem.

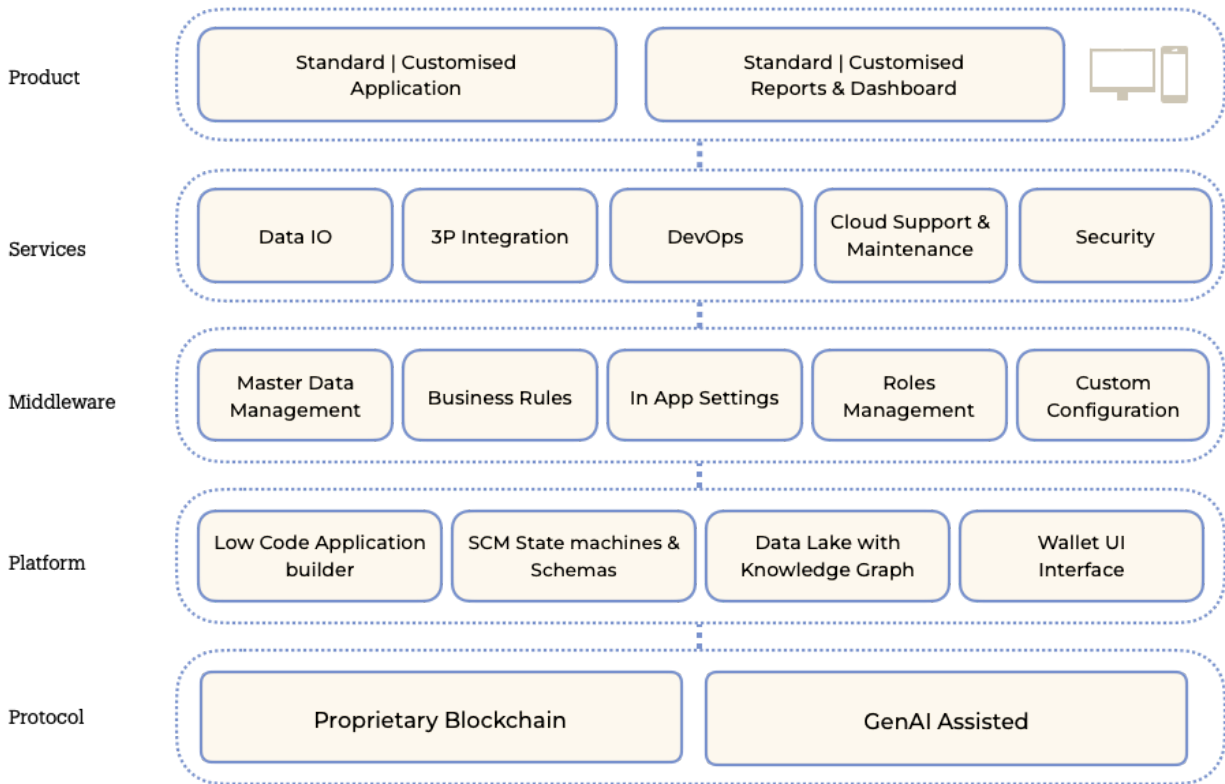
With **continuous planning** capabilities, {{param}} enables enterprises to adapt to changing market dynamics and make informed decisions.

By offering best-in-class supply chain collaboration products, {{param}} ensures that enterprises remain agile, competitive, and future-ready in today's dynamic business landscape.

### Make enterprises future ready by offering a best in class supply chain collaboration products



## {PARAM} Architecture



The {param} architecture is designed to deliver a robust, scalable, and versatile solution across multiple layers, ensuring seamless integration, high security, and efficient operations.

### Protocol Layer:

- **Proprietary Blockchain:** Ensures secure, immutable, and decentralised transactions, providing a reliable foundation for trust and transparency across the network.
- **GenAI Assisted:** Leverages advanced AI capabilities to enhance performance and support intelligent decision-making processes, driving operational efficiencies.

### Platform Layer:

- **Low Code Application Builder:** Facilitates rapid development and deployment of applications, empowering users to create solutions with minimal coding effort.
- **SCM State Machines & Schemas:** Manages complex supply chain workflows and data structures, ensuring smooth and efficient operations.
- **Data Lake with Knowledge Graph:** Provides a unified repository for structured and unstructured data, with intelligent relationships for advanced data analysis.

- 
- **Wallet UI Interface:** Enables user-friendly interactions for blockchain transactions, simplifying the user experience and increasing accessibility.

#### Middleware Layer:

- **Master Data Management:** Ensures consistent and accurate data across the organization, supporting reliable decision-making and operational efficiency.
- **Business Rules Management:** Manages and enforces business logic across all applications, ensuring consistent policy application and operational flexibility.
- **In App Settings:** Offers customizable configurations within applications, allowing users to tailor functionalities to their specific needs.
- **Roles Management:** Manages user roles and permissions, ensuring appropriate access controls and security measures are in place.
- **Custom Configuration:** Tailors solutions to specific business needs, providing flexibility and adaptability in implementation.

#### Services Layer:

- **Data IO:** Handles data input and output processes efficiently, ensuring smooth data flow and integration with other systems.
- **3P Integration:** Integrates with third-party systems like SAP, Salesforce, Oracle, etc., enabling seamless connectivity and data exchange.
- **DevOps:** Ensures continuous integration and delivery using Kubernetes, Prometheus, and other tools, promoting agile development practices.
- **Cloud Support & Maintenance:** Supports various cloud infrastructures including AWS, Google Cloud, OCI, and private clouds, ensuring reliable and scalable operations.
- **Security:** Implements comprehensive security measures across applications, data, and networks, safeguarding against potential threats.

#### Product Layer:

- **Standard | Customised Application:** Offers both standard and tailored applications to meet diverse business requirements and user needs.
- **Standard | Customised Reports & Dashboard:** Provides configurable reporting and dashboard capabilities for enhanced analytics and insights, supporting informed decision-making.

This multi-layered architecture ensures that {param} delivers a comprehensive and integrated solution, capable of addressing diverse business requirements while maintaining high levels of performance and security.

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## Requirement - Pulp Control Tower

**Objective:** To provide real-time visibility into inventory, production, and logistics for effective monitoring and management of Grasim's pulp supply chain dynamics.

**Key Requirements:**

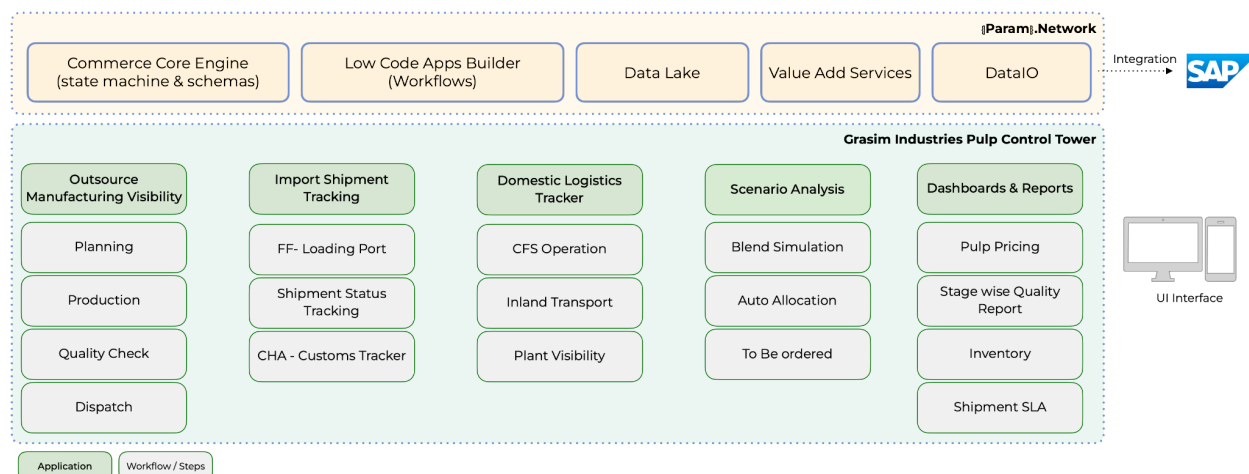
1. **Integration and Automation:**
  - Automate pulp planning, container booking, and shipment tracking.
  - Real-time visibility and data integration across the supply chain.
2. **Sales and Operations Planning (S&OP):**
  - Directly link S&OP output to monthly planning.
  - Enable blend simulations and scenario analysis for supply shortages.
3. **Production and Quality Management:**
  - Integrate with ERP systems for visibility into production and inventory.
  - Manage off-grade or non-prime pulp.
  - Perform quality checks and reconciliation, with alerts for deviations.
4. **Logistics Management:**
  - Track container logistics from booking to loading and inland transport.
  - Provide real-time alerts and visibility on transit delays and port operations.
  - Automate the handling of shipping and commercial documents.
5. **Inventory and Reporting:**
  - Maintain a detailed, real-time inventory report.
  - Implement scenario building for operational and strategic decisions.
  - Track pulp prices and maintain historical trends.
6. **Platform and Dashboard:**
  - Unified platform for all pulp supply chain activities.
  - Real-time visibility, analytics, and alerts.
  - Seamless data integration with SAP and other ERPs.

**Business Challenges Addressed:**

- Eliminate manual, time-consuming processes.
- Improve real-time visibility and decision-making.
- Enhance operational efficiency and inventory management

## Solution Overview

{param} is a platform built for data exchange and interconnecting between heterogeneous organisations and with its low code tool has the ability to build and deploy multiple applications, as the operation's scale and business grows to onboard more stakeholders on the network.



*Grasim Industries Solution Overview*

{param} has a native understanding of commerce documents like PO, SO, Indent Management, Invoice, ASN, GRN, Payment, Returns, and Debit/Credit notes which can be extended to external partners from its existing enterprise systems like ERP, CRM, WMS etc.

The scope of the implementation is as follows:

### **[1] Param Portal set up for OMV, Import Shipment, Domestic Logistics and Spend Analysis**

### **[2] Integration with Grasim ERP**

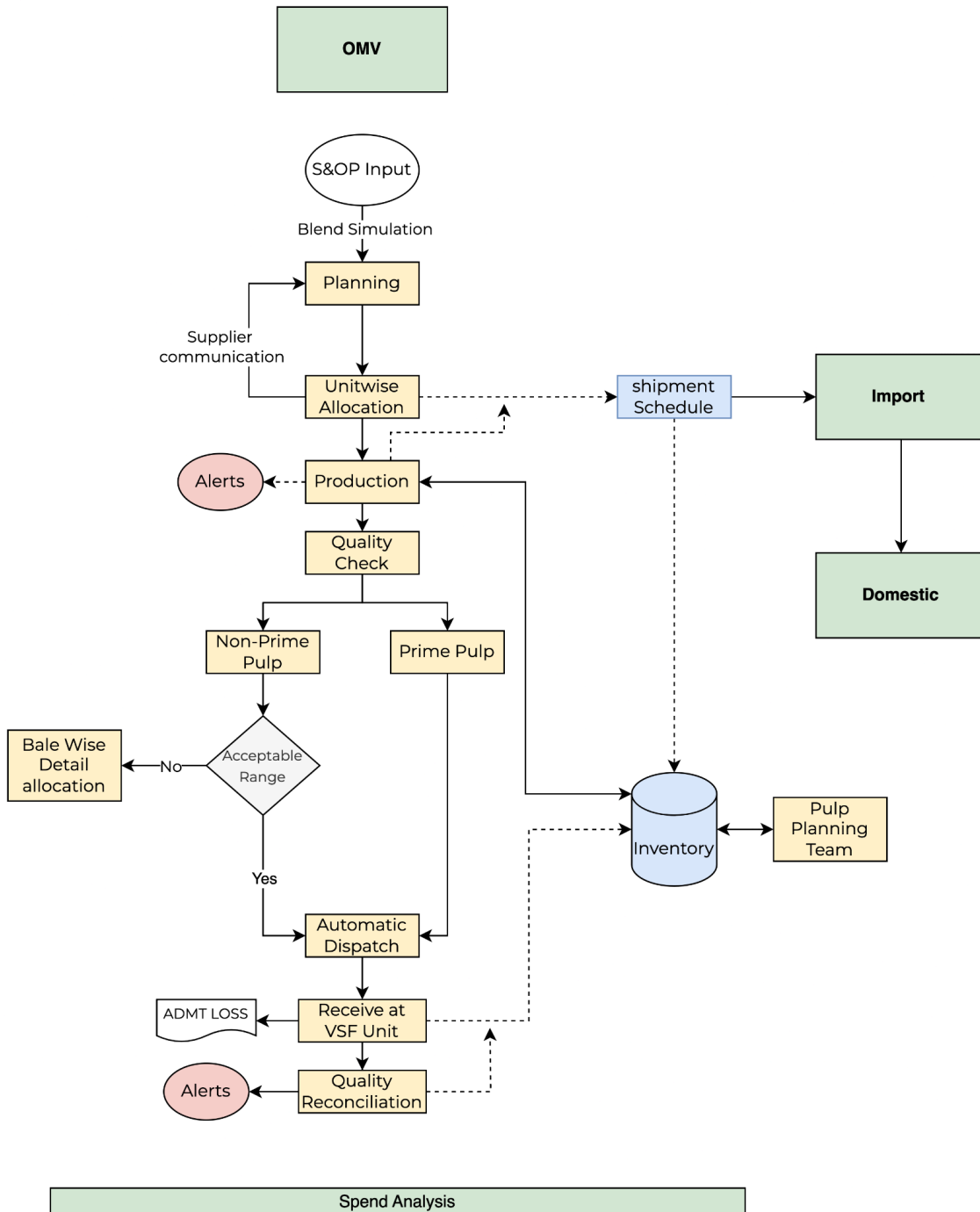
### **[3] Implementing business rules and validations**

The proposed solution is highly robust, adaptable and scalable to ensure minimum friction in the order lifecycle. Automation of internal processes ensures that all the stakeholders' interaction is organised and accounted for, however, the need to collaborate with the external stakeholders is imminent to ensure seamless process management. The solution is designed to accommodate change management with regard to both internal and external stakeholders.

The following are the components in the proposed solution approach:



## Process Flow - Outsourced Manufacturing Visibility



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## Solution Approach

### 1. **S&OP Input:**

- **Blend Simulation:** The process begins with inputs from Sales and Operations Planning (S&OP), which are used to perform blend simulations. This ensures that the production plans align with market demand and inventory levels.
- **Planning:** The planning stage involves creating detailed production schedules based on S&OP inputs and blend simulation results.

### 2. **Unit-wise Allocation:**

- **Supplier Communication:** Continuous communication with suppliers is maintained to allocate production tasks to various units.
- **Allocation Process:** Production tasks are allocated to different units based on current inventory, production capacity, and quality considerations.

### 3. **Production and Quality Check:**

- **Production:** The allocated units commence production based on the detailed plans.
- **Quality Check:** Produced pulp undergoes stringent quality checks to ensure it meets the required standards. The output is categorized into prime pulp and non-prime pulp.

### 4. **Non-Prime Pulp Handling:**

- **Quality Assessment:** Non-prime pulp is assessed to determine if it falls within an acceptable range.
- **Bale Wise Detail Allocation:** If non-prime pulp is within the acceptable range, it is allocated based on specific details. If not, it is flagged for further review.

### 5. **Automatic Dispatch:**

- **Prime Pulp Dispatch:** Prime pulp that passes quality checks is automatically dispatched to the VSF (Viscose Staple Fiber) units.

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- **Inventory Update:** All dispatches are recorded in the inventory system to maintain accurate stock levels.

#### 6. **Inventory Management:**

- **Real-Time Tracking:** The inventory system continuously tracks the levels of both prime and non-prime pulp.
- **Automatic Updates:** Any changes in inventory due to production, dispatch, or receipt are automatically updated in the system.

#### 7. **Shipment Schedule:**

- **Import and Domestic Coordination:** The shipment schedule coordinates both import and domestic logistics to ensure timely delivery of pulp to the required destinations.

#### 8. **Quality Reconciliation:**

- **Receiving at VSF Units:** Upon receipt at the VSF units, the pulp undergoes quality reconciliation to ensure it meets the standards.
- **ADMT Loss Calculation:** Any loss in air-dry metric tons (ADMT) during the process is calculated and recorded.

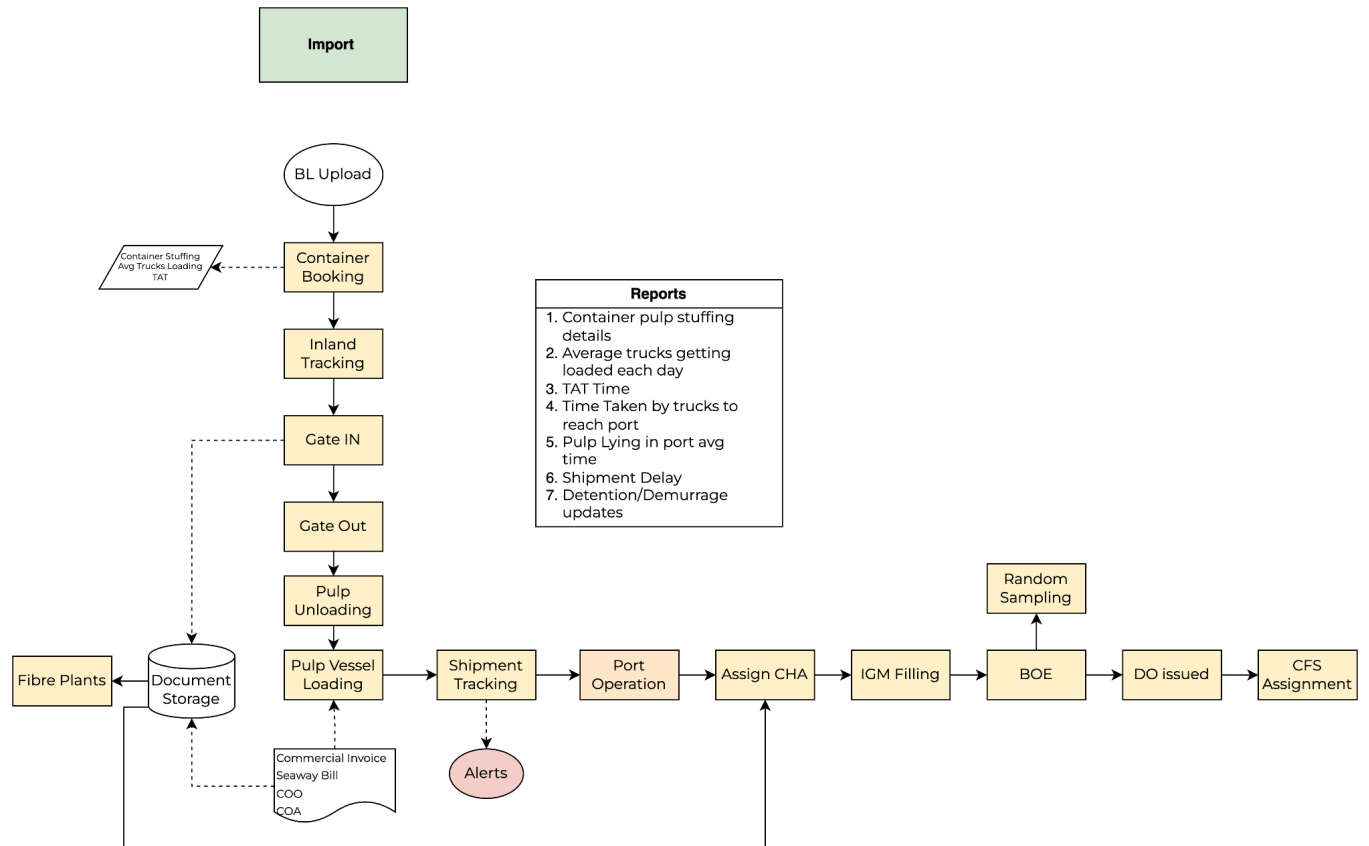
#### 9. **Alerts and Notifications:**

- **Deviation Alerts:** The system generates alerts for any deviations in quality or quantity during production, dispatch, and receipt.
- **Proactive Management:** These alerts enable proactive management of potential issues, ensuring timely corrective actions.

#### 10. **Spend Analysis:**

**Cost Monitoring:** The system performs continuous spend analysis to monitor and control costs associated with production, logistics, and quality management.

## Process Flow - Import Shipment Tracking



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## Solution Approach

### **BL Upload and Container Booking:**

- **Bill of Lading (BL) Upload:** The process begins with the upload of the Bill of Lading, which is a crucial document for import shipments.
- **Container Booking:** Booking of containers with real-time visibility into bookings with various shipping lines. The system captures details such as container pulp stuffing and average truck loading Turnaround Time (TAT).

### **Inland Tracking:**

- **Real-Time Tracking:** The system provides real-time tracking of the inland transport of containers from the supplier to the port.
- **TAT Time:** Monitoring the time taken for trucks to get loaded and reach the port.

### **Gate IN and Gate OUT:**

- **Gate IN:** Tracking the entry of containers into the port area.
- **Gate OUT:** Monitoring the exit of Trucks from the port area to ensure timely handling and avoid delays.

### **Pulp Unloading and Vessel Loading:**

- **Pulp Unloading:** Upon arrival at the port, the container is unloaded.
- **Pulp Vessel Loading:** The unloaded pulp is then loaded onto vessels for further transportation.

### **Document Management:**

- **Document Storage:** All relevant documents, including commercial invoices, seaway bills, Certificates of Origin (COO), and Certificates of Quality Assurance (CQA), are stored electronically for easy access and reference.

### **Shipment Tracking:**

- **Continuous Monitoring:** The system continuously monitors the status of the shipment and provides real-time updates.
- **Alerts:** Automated alerts for any shipment delays, detention, or demurrage updates, ensuring proactive management of potential issues.

### **Port Operations:**

- **Port Activity Monitoring:** Integrated view of port activities, including customs clearance and container scanning.
- **Coordination with Customs House Agents (CHA):** Assigning CHAs for efficient handling of customs formalities.

### **Customs Formalities:**

- **IGM Filing:** Filing of the Import General Manifest (IGM) with the customs authorities.
- **Bill of Entry (BOE):** Preparation and submission of the Bill of Entry for customs clearance.

- **Random Sampling:** Random sampling of consignments as per customs requirements.

#### **Delivery Order (DO) and CFS Assignment:**

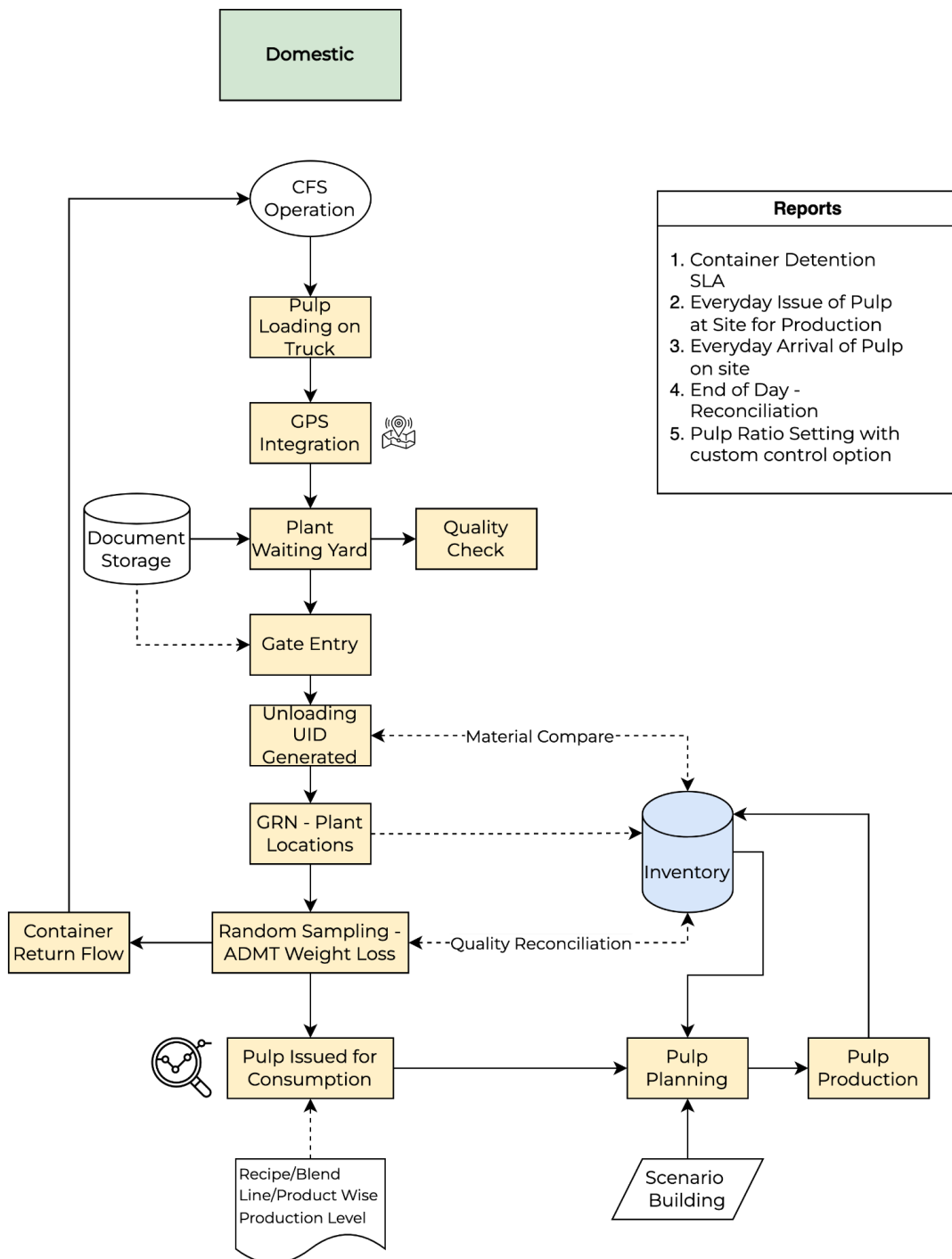
- **DO Issuance:** Issuance of the Delivery Order upon customs clearance.
- **CFS Assignment:** Assigning containers to the Container Freight Station (CFS) for final processing and delivery to the consignee.

#### **Reports and Analytics**

**Reports:** The system generates comprehensive reports to provide insights into various aspects of import shipment tracking, including:

1. Container pulp stuffing details.
2. Average trucks getting loaded each day.
3. Turnaround Time (TAT) for loading and transportation.
4. Time taken by trucks to reach the port.
5. Average time pulp lies in the port.
6. Shipment delays.
7. Detention/Demurrage updates.

## Process Flow - Domestic Logistics Tracking





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## Solution Approach

### CFS Operation and Pulp Loading:

- **CFS Operation:** The process begins with Container Freight Station (CFS) operations, where pulp is managed and prepared for loading onto trucks.
- **Pulp Loading on Truck:** Pulp is loaded onto trucks for transportation to the designated plants. The loading process is monitored and recorded to ensure accuracy.

### GPS Integration:

- **Real-Time Tracking:** Trucks equipped with GPS devices enable real-time tracking of their movements.

### Plant Waiting Yard and Quality Check:

- **Plant Waiting Yard:** Upon arrival at the plant, trucks are directed to the waiting yard.
- **Quality Check:** Conducted at the plant to ensure the received pulp meets quality standards. This involves checking for any damage or discrepancies during transit. Container seal is also checked.

### Gate Entry and Unloading:

- **Gate Entry:** The entry of trucks into the plant premises is recorded.
- **Unloading UID Generated:** A unique identifier (UID) is generated for each unloading event to track and manage the pulp effectively.

### **Document Management:**

- **Document Storage:** All relevant documents, including receipts, quality checks, and inventory records, are stored electronically.
- **Automated Processes:** Automation of document management reduces manual handling and improves accuracy.

### **Inventory Management:**

- **GRN and Plant Locations:** Goods Receipt Notes (GRN) are generated for each plant location to update the inventory system.
- **Real-Time Updates:** Inventory levels are updated in real-time to reflect the received quantities of pulp.

### **Random Sampling and Quality Reconciliation:**

- **Random Sampling:** Random samples are taken from the received pulp batches to verify quality and ensure compliance with standards.
- **ADMT Weight Loss:** Any weight loss during transit is recorded and analyzed.
- **Quality Reconciliation:** Ensures that the received pulp meets the specified quality requirements, with any deviations being flagged for corrective action.

### **Pulp Planning and Production:**

- **Pulp Planning:** Based on the received inventory, detailed pulp planning is carried out to meet production requirements.

- **Scenario Building:** Scenario analysis is conducted to handle supply disruptions or changes in demand, ensuring optimal use of available resources.
- **Pulp Production:** The planned pulp is issued for consumption and production at the plant, with detailed tracking of usage and production levels.

#### **Container Return Flow:**

- **Return Management:** Management of empty container returns to ensure efficient logistics and cost management.
- **Tracking and Coordination:** Real-time tracking and coordination of container return processes to avoid delays and Penalty charges.

**Reports:** The system generates comprehensive reports to provide insights into various aspects of domestic logistics tracking, including:

1. Container detention and Service Level Agreements (SLA).
2. Daily issue of pulp at the production site.
3. Daily arrival of pulp at the site.
4. End-of-day reconciliation.
5. Pulp ratio settings with custom control options.

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## SCENARIO ANALYSIS

### **Blend Simulation:**

- Scenario Building: Simulation of different pulp blends to handle short supplies or exigencies.
- Real-Time Adjustments: Real-time adjustments to production plans based on simulation results.

### **What-if Analysis:**

- Impact Prediction: Tools for performing what-if scenarios to predict the impact of changes in supply or production.
- Predictive Analytics: Use of predictive analytics to forecast potential disruptions and optimise response strategies.

### **Inventory Management:**

- Scenario-Based Adjustments: Real-time updates on inventory levels with scenario-based adjustments.
- Automated Replenishment: Automated triggers for inventory replenishment based on scenario analysis.

### **Predictive Alerts:**

- Proactive Management: Generation of predictive alerts based on scenario analysis for proactive supply chain management.
- Automated Notifications: Automated notifications for potential supply chain disruptions, enabling timely corrective actions.

### **Reports and Analytics:**

- Comprehensive Reports: Detailed reports provide insights into various aspects of scenario analysis, such as the impact of different scenarios on production, inventory levels, and supply chain performance.

### **Index Price Integration:**

- Get real time pulp market price index for timely planning

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## Dashboard and Reports

### Unified Dashboard:

- **Unified View:** A unified dashboard displaying key metrics and KPIs related to the pulp supply chain.
- **Interactive Visualization:** Interactive visualisations that allow users to drill down into data and gain deeper insights.

### Inventory Reports:

- **Detailed Reporting:** Detailed reports on inventory status, including opening stock, receipts, consumption, and closing stock.
- **Real-Time Updates:** Real-time updates on inventory levels and movements.

### Shipment Reports:

- **Tracking and Monitoring:** Real-time updates on shipment schedules, container movements, and port activities.
- **Exception Management:** Automated alerts and notifications for shipment exceptions and delays.

### Quality Reports:

- **Quality Reconciliation:** Reconciliation of quality parameters for received pulp, including financial impact assessments.
- **Detailed Analysis:** Detailed analysis of quality data to identify trends and areas for improvement.

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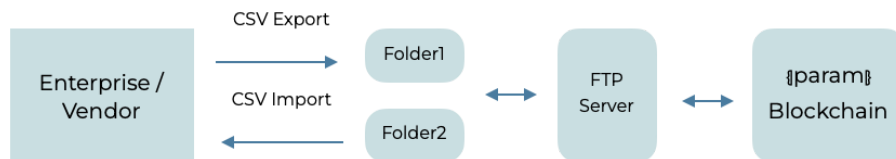
## [2]Integration with Grasis SAP

The integration with suppliers/enterprises can be done through.

1. SFTP Based integration

### **SFTP-Based Integration:**

The Secured File Transfer Protocol (SFTP) is a standard network protocol used to transfer computer files between a client and server on a computer network. With {param} FTP integration, you can connect your internal server or any other third-party server to enable easy import and export of data. FTP integration is extremely useful when the channels you use don't integrate with {param} or APIs are not available to connect two systems/providers.

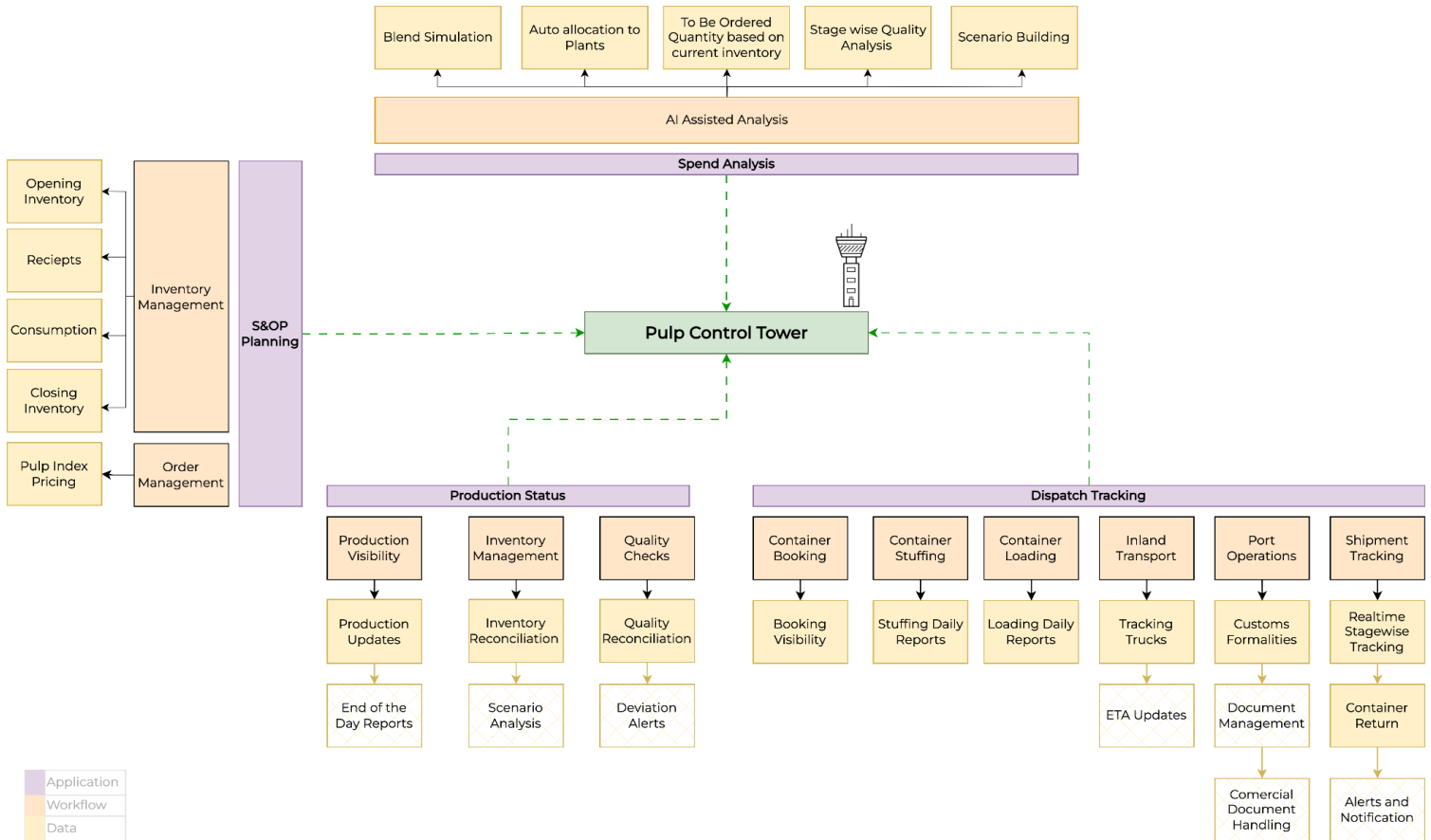


Under SFTP, we provide the export of the data required from ERP to {param} and import the required details from {param} to ERP.

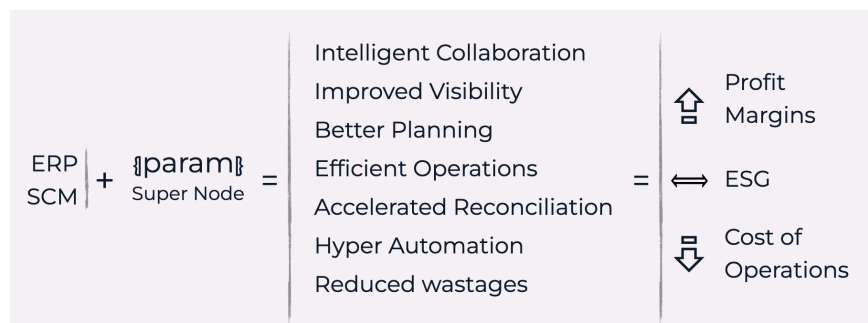
## [3] Role Based Access Control

- Enhanced data security and privacy through role-based access control.
- User specified control over user permissions and data access.
- Robust RBAC system to safeguard sensitive information.
- Customizable access controls to accommodate the diverse roles within Grasis Industries

## Modules Covered in SCOPE



## Outcomes & Benefits



### Accelerated Reconciliation without the need for OCR

{param} offers a hassle-free automated Invoice reconciliation and dispute management system through our electronic document exchange platform. We eliminate the need to share PO/Invoices in PDF format or by email, thus no more OCRs. In the platform, the invoice/payment confirmations happen on both sides within a few seconds, ensuring that reconciliation is never a problem.

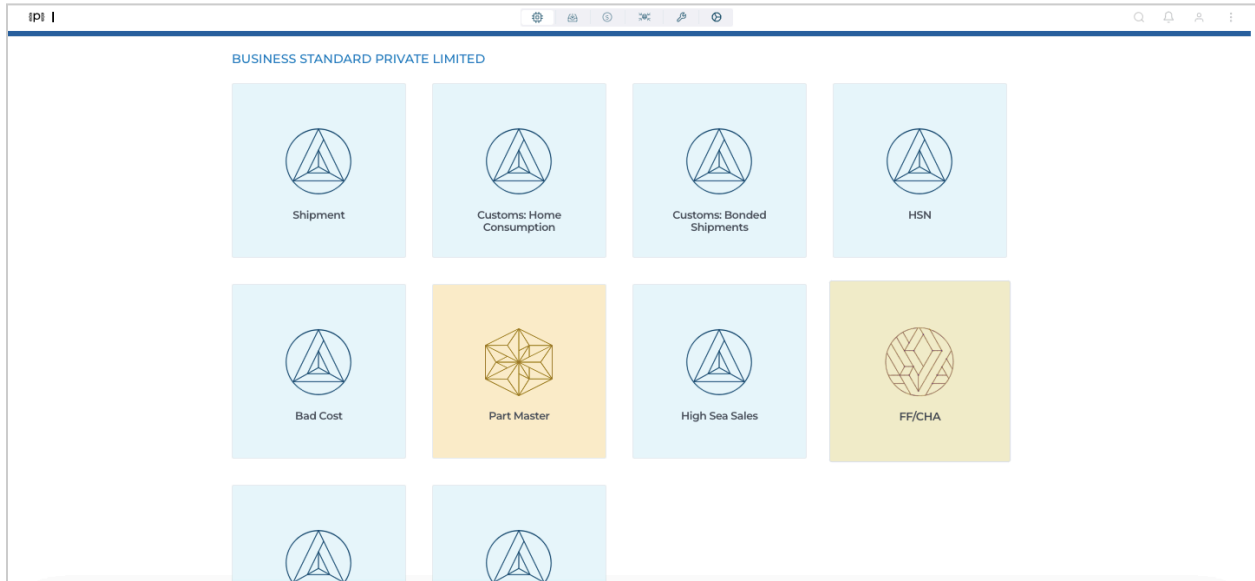
Seamless integration of various systems and distributed ledger across parties involved in the value chain help to reconcile transactions in real-time. The entire sales and purchase details are instantly reconciled at an order/item level with zero overhead. Once the payment details are updated in the {param} system, it shows a real-time reconciliation report, supplier-wise and PO-wise. We hope they achieve the below-stated benefits through this implementation:

- 100% elimination of redundant work
- Real-time monitoring and trail auditing for business workflows and efficiencies.
- Highest degree of collaboration between finance and operations team
- Real-time visibility of the transactions for all the parties concerned
- ~70% reduction in the overall order processing cost
- 10x faster processing of invoices establishing a positive relationship with the vendors
- Automated processes with least/no margin of errors
- Leverage additional opportunities through a granular level of visibility
- Invoice-wise, payment reconciliation, and custom alerts to the customers

**A single powerful solution that automates every step in the procure to pay process.**



## Sample Screenshots



Reference Image of {param} Landing Page

1	Estimated Time o...	Estimated Time o...	Mode of Shipment	Job ID	Multi Level Billing	Current Status	Current Status D...	HAWB Document	Packaging List Doc...	Invoice Document	Action
	15-2-2024	18-2-2024	Air	2413100130	Yes	--	--				Action   >
	19-3-2023	19-3-2023	SEA	2421700119	No	Damage	28-3-2023				Action   >
	25-1-2024	25-1-2024	Air	2412600103	Yes	--	--				Action   >
	2-2-2024	9-2-2024	Air	2411700116	Yes	ATD	--				Action   >
	19-3-2023	19-3-2023	SEA	--	No	Damage	28-3-2023				Action   >
	19-3-2023	19-3-2023	SEA	--	No	Damage	28-3-2023				Action   >
	--	--	SEA	--	0	15	28-3-2023				Action   >
	18-1-2024	18-1-2024	Air	2413000078	Yes	Missing ATD	--				Action   >
	19-3-2023	19-3-2023	AIR	--	0	--	--				Action   >
	20-1-2024	31-1-2024	Air	2412000061	Yes	--	--				Action   >
	16-1-2024	16-1-2024	Air	2411200060	No	--	--				Action   >
	13-1-2024	13-1-2024	Air	2411700052	No	--	--				Action   >

Streamlined Document View for each Shipment

### Sample Field and Document View

### Sample Dashboard View

PR

Ansapack

HEED0981

Ansapack, Ansapack

Value

₹ 0.00

Plant

560020

Vendor id

HEED0981

Purchase Requisition

A/RAD2/1687426426818

Issue Date

22 Jun 2023

Valid Until

22 Jun 2023

Item	Quantity	Unit	Tax	Rate(₹)	Total(₹)
Rolling Labels	78600	-	IGST 0% CGST 0% SGST 0% Discount 0%	0.00	0.00
plastic films	54200	-	IGST 0% CGST 0% SGST 0% Discount 0%	0.00	0.00
Racks	200	Units	IGST 0% CGST 0% SGST 18% Discount 0%	0.00	0.00
SubTotal					₹0.00
Discount on Items					₹0.00
Total Discount					₹0.00
Total Tax					₹0.00
Grand Total					₹0.00

Amount Chargable: ₹0.00

Amount Chargable (in words): Zero Rupees Only

Note:

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Hide HSN Table

HSN Code	Taxable Value	Central Tax	State Tax	Other Tax	Total Tax Amount
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Timeline

PURCHASEREQ

A/RAD2/1687426426818  
22/Jun/2023 , 15:04  
Block Number: 3016497

INITIALRFQ

A/RAD2/1687426426818/TCMO7483  
22/Jun/2023 , 15:26  
Block Number: 3016505

A/RAD2/1687426426818/UTVV7554  
22/Jun/2023 , 15:26  
Block Number: 3016505

INITIALBID

A/I/1687427844196  
22/Jun/2023 , 15:27  
Block Number: 3016506

FINALQUOTATION

A/F/1687427919757  
22/Jun/2023 , 15:29  
Block Number: 3016507

FINALBID

A/F/1687428009598  
22/Jun/2023 , 15:30  
Block Number: 3016508

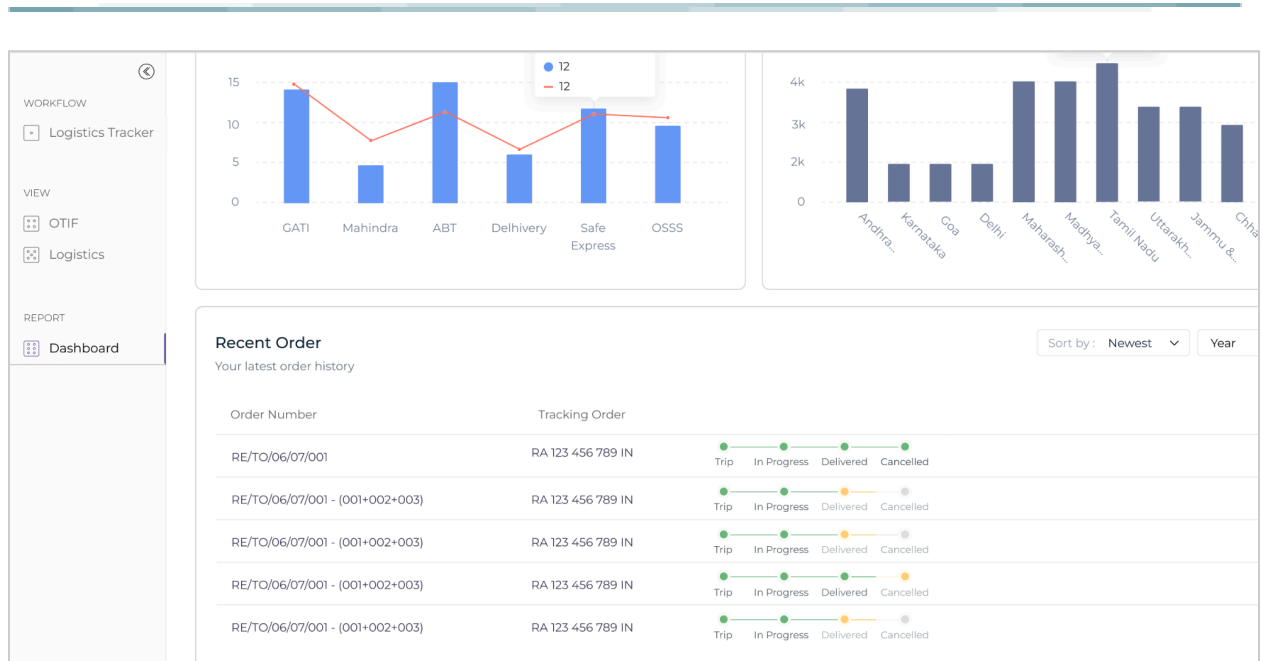
Reference Image of {param} Audit Trail

Production Status																		Save	Submit	×
IIT	OPERATION ROUTE	OPERATION STATUS	CM1	CM2	ANL	HSL	LCL	LSL	HCL	HVS	TL	TOLL	AGE	LAST OPERATION	HRC WT	HRC WIDTH	PRODUCTION STATUS	ETA (IN DAYS)		
1	1.3.5.7.HVS.TO.TO	0.0.0.0.0.1	0	0	0	0	0	0	0	0	0	0	1	1674	Colour Coating	4882	1295	In Progress	02	
1	1.3.5.HVS.TO.TO	0.0.0.0.1	0	0	0	0	0	0	0	0	0	0	1	1674	Colour Coating	5110	1295	In Progress	03	
1	1.3.5.7.HVS.TO.TO	0.0.0.0.0.1	0	0	0	0	0	0	0	0	0	0	1	1674	Colour Coating	5168	1295	In Progress	07	
1	1.3.5.HVS.TO.TO	0.0.0.0.1	0	0	0	0	0	0	0	0	0	0	1	1674	Colour Coating	5182	1295	In Progress	05	
1	TO	1	0	0	0	0	0	0	0	0	0	0	1	1674	-	3162	790	In Progress	02	
1	TO	1	0	0	0	0	0	0	0	0	0	0	1	970	-	4072	1040	Completed	04	
1	1.3.5.HVS.TO.TO	0.0.0.0.1	0	0	0	0	0	0	0	0	0	0	1	854	Colour Coating	5160	1295	Completed	02	

Sample Production Status Visibility

Strictly Confidential

27



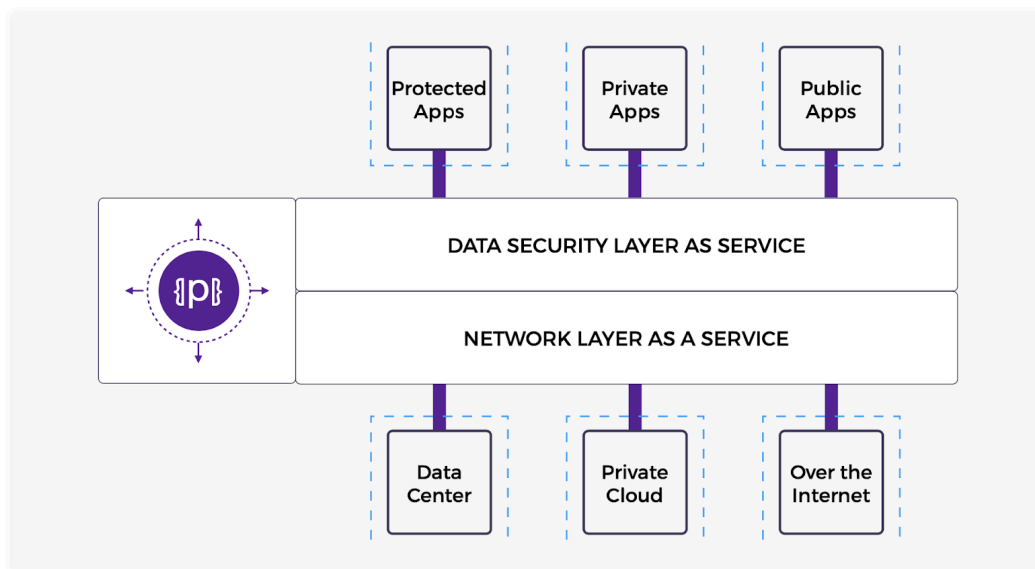
Sample Logistics Tracker Dashboard

## Data Security

{param} offers a complete suite of plug N play solutions (infra/apps) for both SME and Large enterprises to adopt new technology seamlessly. As an ISO/27001 and CSA STAR LEVEL 2 certified product, our cryptography modules ensure the highest level of data privacy over a blockchain network.



{param} Network provides comprehensive security measures at the data level, application level, and network level to ensure the protection and integrity of information. Here's a brief overview of each level of security:



### Data Level Security:

{param} Network employs robust encryption techniques to safeguard data at rest and in transit. This ensures that sensitive information is securely stored and transmitted, making it difficult for unauthorised parties to access or intercept the data. Encryption helps prevent data breaches and unauthorised data access, providing a high level of data protection.

### **Application Level Security:**

At the application level, {{param}} Network implements stringent access controls, authentication mechanisms, and user permissions. Only authorised individuals with appropriate credentials can access the system and perform specific actions. This ensures that data and functionalities are accessible only to authorised users, reducing the risk of unauthorised access or malicious activities.

### **Network Level Security:**

{{param}} Network employs robust network security measures to protect against external threats. This includes firewalls, intrusion detection and prevention systems, and regular security audits. These measures help to safeguard the network infrastructure from unauthorised access, malware, and other cyber threats, ensuring the overall security and stability of the network.

By implementing data level, application level, and network level security measures, {{param}} Network ensures that the information exchanged and stored within the network remains secure, mitigating the risks associated with data breaches, unauthorised access, and malicious activities. These security measures provide users with confidence in the privacy and integrity of their data, enabling them to leverage the benefits of {{param}} Network with peace of mind.

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## Team and Contact Details



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