

CFSMag⁺ Enterprise Edition

One step solution for Logistics



Technology Framework

Solution Architecture – CFSMag Enterprise Edition

API Engine for External Thin Client - Browser Access **Mobile Application** Web Service (Chrome, IE, Firefox, (Android / IOS) Layer (REST API) Edge) **UI** Layer HTML 5 Angular 12 **jQuery** Bootstrap HTTPS **ICEGATE** Office .NET Core on C# Components **SCMTR** Service Layer DB **API Engine PCS** MVC Connectivity Web Service Framework (REST API) Tools Elnvoice TCP/IP SQL Server / PostgreSQL / Oracle DB Layer

- Support Chrome, IE, Firefox and Microsoft Edge Browser
- User friendly UI with multi thread process
- Support Android and IOS Mobile
- Device Independent
- API Engine Open to Interface with external entities
- Extendable to microservices,
 Kubernetes framework
 deployment in Google Cloud
 Platform
- Secured with VAPT compliances
- Fast Process with N-tire Architecture.



Securities

- System certified with VAPT Compliance along with VAPT Report
- Internal audit process maintains each and every activity recorded with time and user
- Audit trail at all transactions and configuration modifications, maintain all change management records along with user information and timestamp with modified data information
- HTTPS protocol secure the system from hacking and other interference
- User control and access control availed in the system to provide limited usage to the user
- Internal algorithm facility availed to avoid data level security

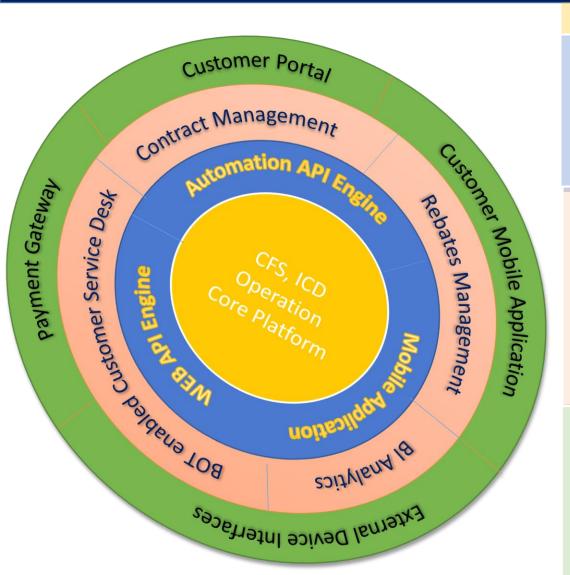


Document Management System

- DMS provides to load scan copies of information at each and every level of operation
- DMS provides to take container damage photos, Surveyor, CHA photo who take the cargo and container and plug in to respective operation
- User friendly document review for each and every document respect to container and cargo
- System facilitate to view the document audits, whenever any scrutiny comes from customs or any other bodies.



Application Framework



- Core Application covers all the operations and business processes
- Automation API Engine covers RFId, Barcode, QR Code, Equipment interface processes
- <u>Mobile Application</u> covers Real time data capture using RDT, VMT and mobile data entry at operational areas
- WEB API Engine covers Data exchange process for Customs, ICEGATE, SCMTR, PCS, UN EDIFACT or any other Statutory related data exchanges
- <u>Contract Management</u> covers contract definition related to sales respect to customer, cargo, vessel, periodic and many more base
- <u>Rebate Management</u> extension of contract management, defines rebates to direct and indirect stake holders
- <u>Customer Service Desk</u> is related to customer complaint management and tracking along with BOT facility
- <u>BI Analytics</u> covers data analysis based on all information data bank
- <u>Customer Portal</u> covers system access to external users along with data exchange process
- <u>Customer Mobile Application</u> extension of customer portal, which covers mobile application for external users along with data exchange
- <u>External Device Interfaces</u> covers API for interfaces with external devices like GPS on truck, FASTag kind of interfaces
- Payment Gateway covers payment gateway interface with customer portal

VnVCS V&V Comptech Systems

Core Platform Modules

CFSMag+ Enterprise Edition Core Application Modules Covers

- Import, Export, Bond, Empty Container; Cargo and DOMESTIC Operation
- Barge Operation, ROAD and Rail Transportation
- Empty Yard Module and Container Repair Module
- Rail Terminal and Rail Service, hub and spoke business process
- Rail Siding Operation for 3rd Party ICDs and 3rd Party Rakes
- Complete Fleet Management interface with GPS Devices
- Warehouse Management with 3PL activities
- Liquid Terminal, Project Cargo, 3rd Party Inventory Management and Break
 Bulk Cargo Management
- Gate Automation for Container and Cargo
- Yard Automation with Planning and Management and Way Bridge
 Integration
- Online Data capturing for Yard and Warehouse Operation using RFID and Bar Codes
- Stores Management integrate with Container Repair Operation
- Resource Management including Human Resource and Equipment

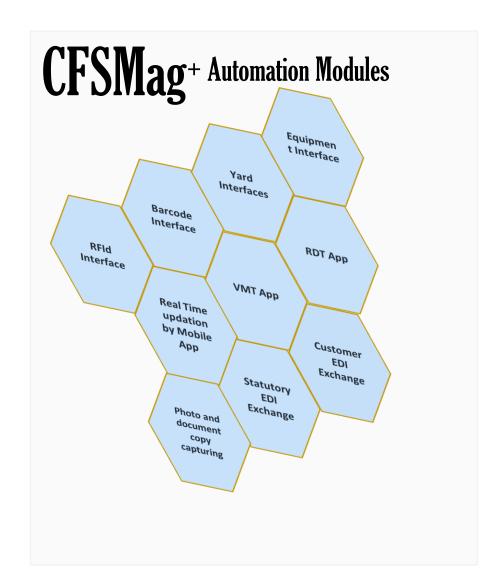


VnVCS V&V Comptech Systems

Automation Platform Modules

CFSMag+ Enterprise Edition Automation Modules Covers

- Automation process which involves RFId Interfaces, Barcode, QR Code scanning in Gate, Yard and Warehouse process
- Equipment and Driver management using RFId of Equipment and Driver card interface automation
- Internal Mobile Application for real time data updation at gate, yard,
 warehouse and customs operation for container and cargo service
- HHT / RDT interface for real time data updation
- VMT interface for internal vehicle drivers for container and cargo movements job allocations
- Source data reconciliation and interfaces by PCS, ICEGATE, SCMTR and UN
 EDIFACT respect to operation and customs process



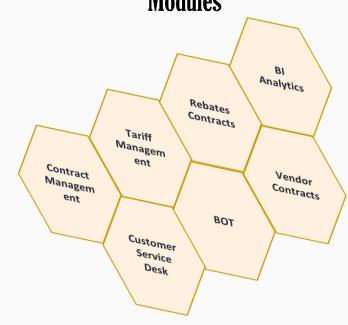


Sales and Customer Management Platform Modules

CFSMag+ Enterprise Edition Sales and Customer Management Modules Covers

- Customer Contract Configuration, Approval process
- Customer Tariff Management
- Rebates Management for Direct and Indirect Stake holders
- Customer Service Desk, for issues related logging for customers
- BOT for customer interaction
- Vendor Contract Management along with Transportation and Operations

CFSMag+ Sales and Customer Management Modules





Customer Interaction Platform Modules

CFSMag+ Enterprise Edition Customer Interaction Modules Covers

- Faceless Process Enabled
- Customer Portal and Customer Mobile Application enable customer to access the limited data
- All Inventory, Gate process, Billing related to customer data enabled
- Service Request updation, pre-advice, DO and any information updation directly in the Portal
- Proforma Invoice for customer to view respect to customer billing
- Payment gateway interface facility to online payment collection
- External EDI Engine Interface for outsider like ODEX etc





Benefits

CFS and ICD Modules

- DMS provides easy way for Documentation Management covers recording scanned documents at all stages through the Portal
- Tight Audit Process covers data changes audit and alerts for changes
- Admin level data change layer with Audit; provides system admin level for data change outside the system with audit trails.
- User Define EDI Engine Provides rich facility for EDI generation
 which can be configurable for any EDIs
- Gate, Yard and Warehouse Automation interfaces provides accurate and reliable data
- Customized Billing configuration provides configuration of billing based on customer requirements

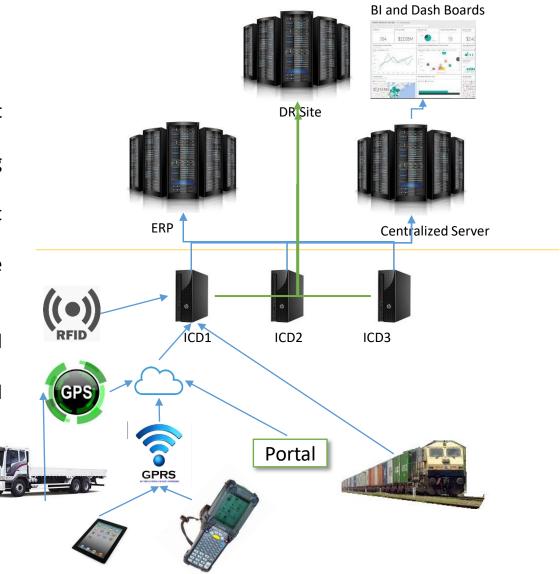
Other Value Added Modules

- Online Data Capturing for surveyors at Rake Operation, Warehouse
 Operation and other areas avoid repeated data entry and provide
 online data for all the level
- API for Interface with 3rd Party tools like Mobile Apps, SMS, Portals
- BI Solution provides profitability of cycle, sector, commodity, customer, service and much more drill down
- Dash Boards and Reports provides online analysis to the management
- System driven process provides pending queue list for each and every activity to user
- Reefer Management facilitates to record reefer temperature online,
 allocate plugs and containers
- BOT Semi automated services for customer



Proposed Solution with Licensing mechanism

- Single Software, Common Architecture for all the ICDs and CFS
- Location based Database to ease the local operation
- Centralized database replicate local database at centralized server
- Centralized database used for management reports, statistics report avoids load on local system
- ERP Interface with SAP will be carried online using Middle level staging interface
- Warehouse online data capturing using iPAD with Bar code reader it connects local server using GPRS
- Handle Terminal for Rake Operation, Yard Operation and other site activities
- Gate Automation using RFId Solution connect with local server
- Equipment Performance capturing using RFId interface with all equipment
- Driver Performance capturing using Card Reader interface with all equipment
- Trailer Tracking using GPS device interface attached with Trailers





ERP Interface

CFSMag+ Enterprise Solution interface with INFOR / SAP / SAGE / **ACCPAC**

CFSMag+ Enterprise Interface

- facility to CFSMag+ Enterprise availed interface with ERP systems for
 - **Customer Invoices**
 - **Taxes**
 - Tariff Ledger
 - Customer Ledger
 - Payment Collection from Customer
 - Credit Notes and Reconciliation
 - **Vendor Payments**
 - **Expenses Accruals**



