

Wissen Zentrum Technology

Technology Control system



"we make technology work for you"

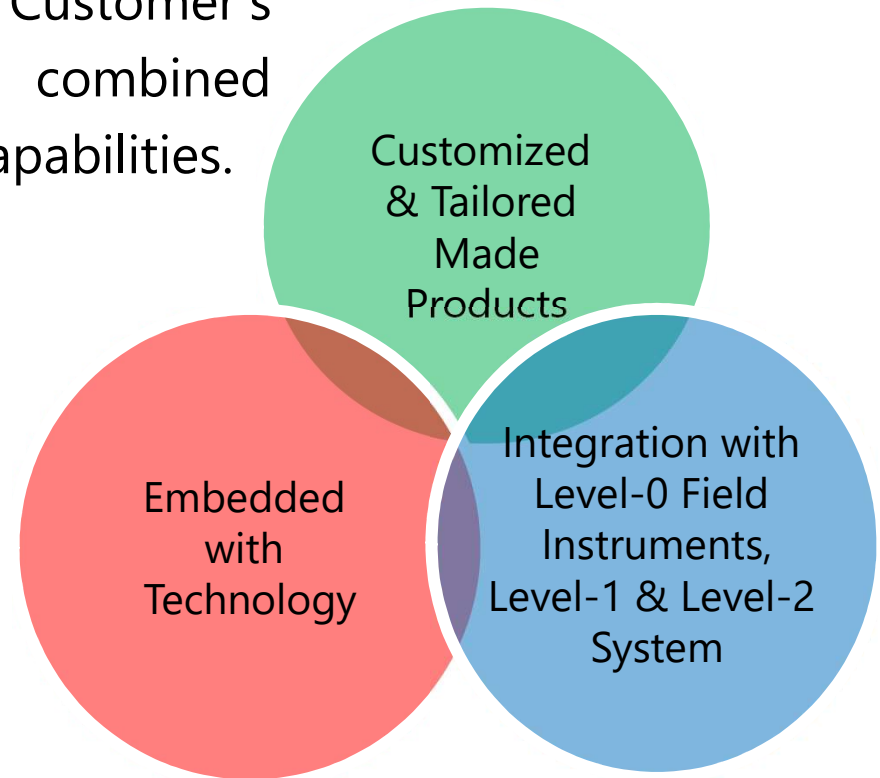
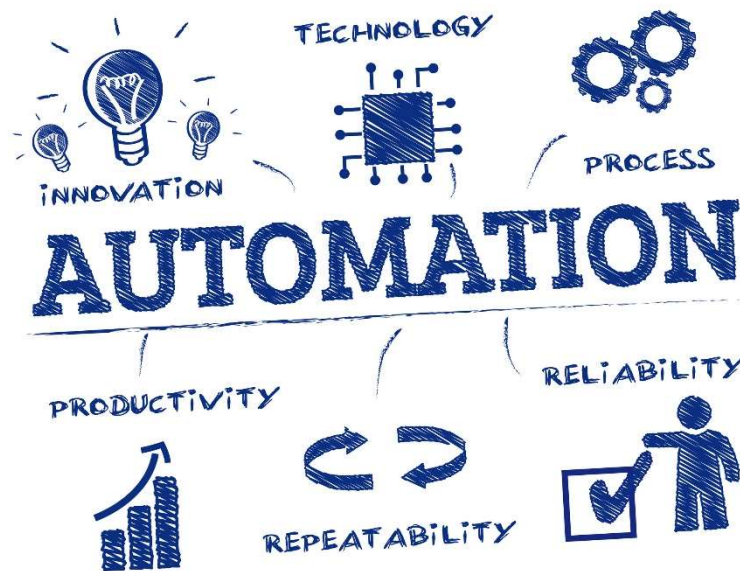




Wissen Zentrum Technology

We are a solution provider

We value the demands of our Customer's Benefit & Investment from our combined competence with these THREE key capabilities.

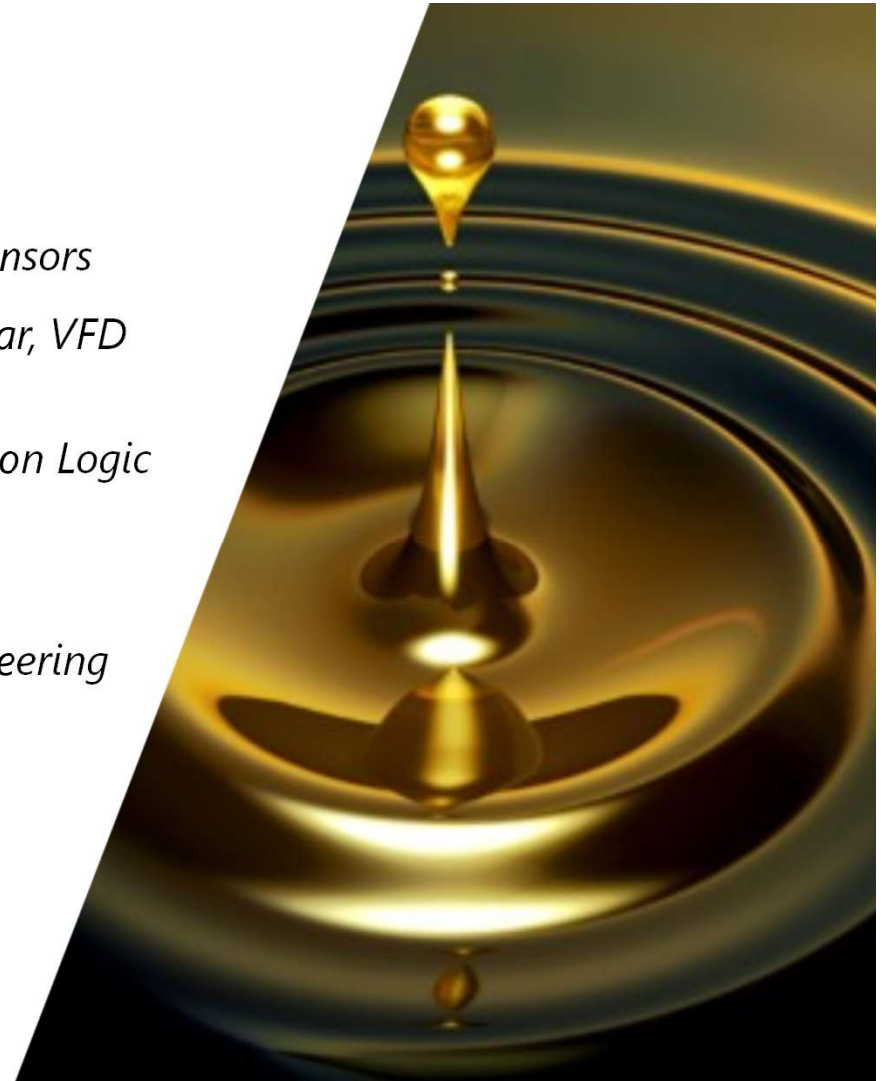




The type of work we do

At Machine Level Integration

- *Integration with Level-0 Field Instruments & Sensors*
- *Motor Control Center (MCC), PCC, LV Switchgear, VFD Panels*
- *Level-1 PLC/DCS Automation System: Application Logic and SCADA / HMI*
- *Integration with Level-2 System*
- *Technology is embedded in our design & engineering*
- *Customized & Tailored Made Solutions*
- *Committed to Best Customer Service*
- *Proven & Reliable Design & Engineering*

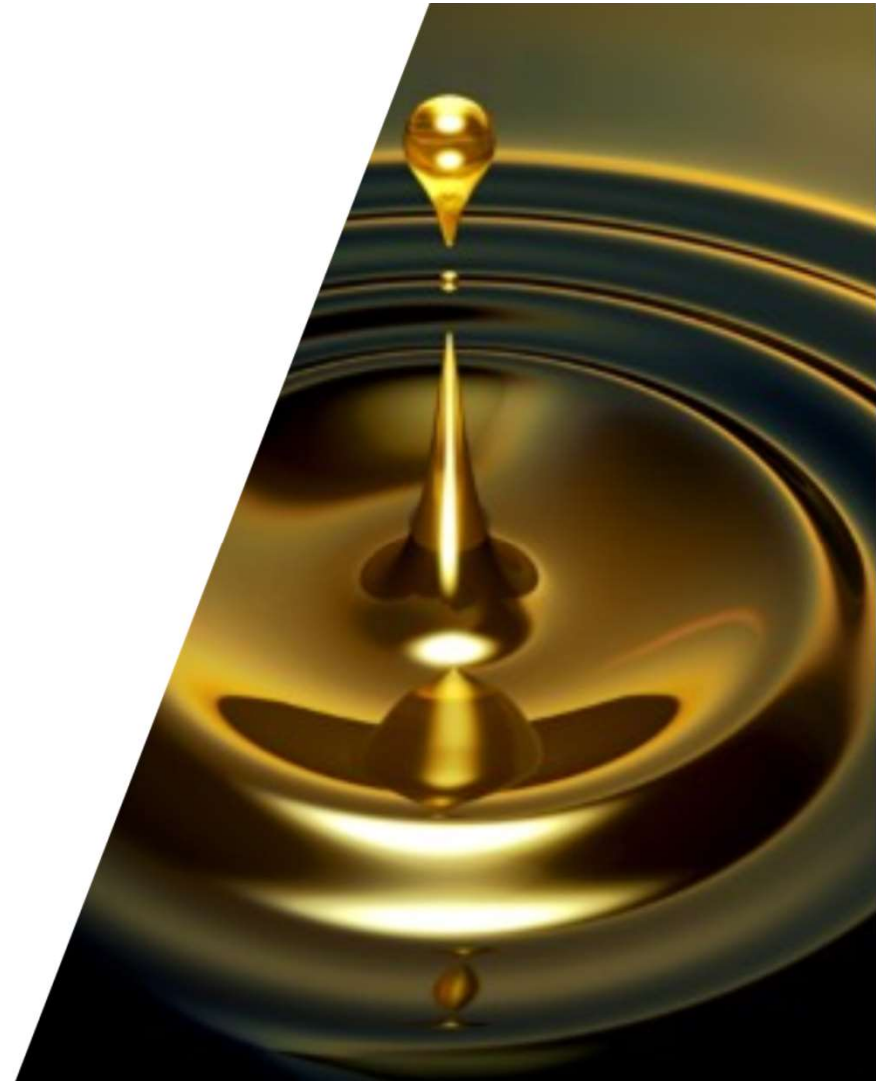




The type of work we do

At Management Level

- *Integration with Sales Team*
- *Dispatch & Transport Management*
- *Material Stock Data Base Management*
- *Inventory Control*
- *Production & Planning*
- *Product Test Report*
- *Production Cost Analysis*
- *Human Resource Management*
- *Supply Chain Management*
- *Sales Cost Analysis*

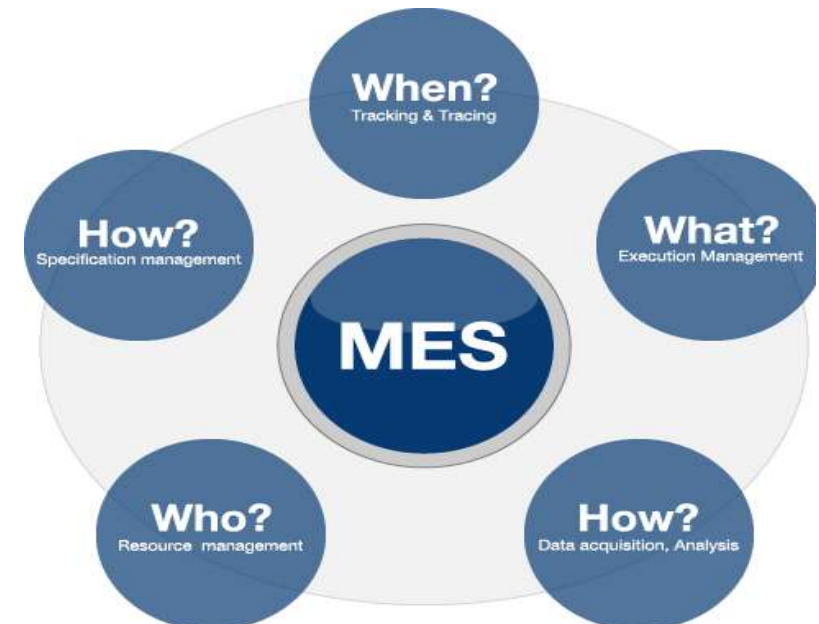




The type of work we do

At Integration Level

- *Integration with Level-2 System*
- *Level-3: MES/MIS System and Communication with Plant wide ERP/SAP*
- *Cloud Computing: Server, Database, Application, Backup,*
- *Maintenance*
 - *Preventive, Conditional, Predictive*
- *E-Reporting: Mobile App,*
- *SMS and E-mail Alert & Reporting,*





3rd Party Interfacing and Communication

As "Wissen Zentrum Technology" is a multiplatform operator. We address the interfacing needs of the customers. In medium size orgs, retrofit in every aspect of engineering is a challenge and this becomes manifold when it is Automation.

Modbus®

Let



the



Protocols



keeping
everything
running.

We can integrate and deliver

be many.....



Wissen Zentrum Technology explores a Solution of New Generation Maintenance Tools: Keep Production Process Uninterrupted



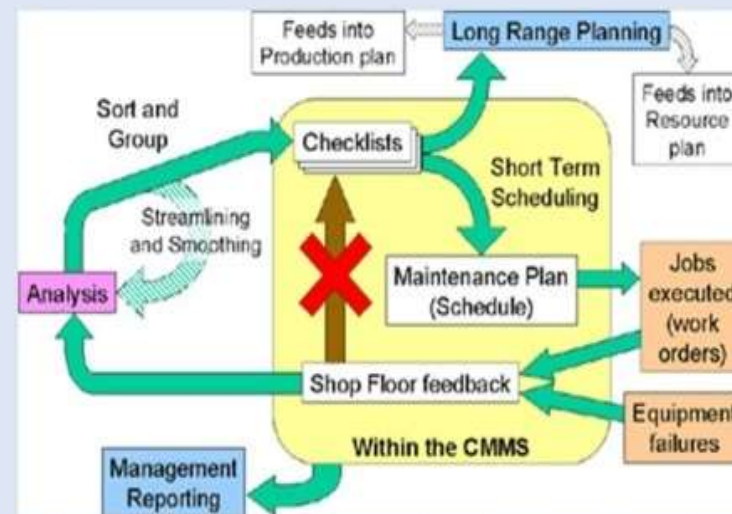
- *Maintenance*
 - *Preventive Maintenance*
 - *Conditional Maintenance*
 - *Predictive Maintenance*



Planned Preventive Maintenance

The Maintenance Information Loop

The figure below describes the flow of maintenance information and how the various aspects fit together.



The large square block indicates the steps that take place within the computerized maintenance management system, or CMMS.



Solutions & Services

MIS/MES: Enterprise Resource Planning	Vertical Market Solutions	Automation (Level-1 & SCADA- HMI) & Instrumentation	PANELS: VFD/ PCC / MCC/ Switchgear
<ul style="list-style-type: none">• Production-Planning, Reporting & Data Base Management• Production Tracking• Material & Stock Management• Supply Chain Management• Warehouse & Transport Management• Production Cost Analysis• Integration with ERP/SAP• Oracle / MySQL Database	<ul style="list-style-type: none">• High End Control Systems• Independent and CLOUD based solution• Innovative Tailored Made Technology• Reports & Analysis via EMAIL, SMS, Mobile App Gateway• Tailored Made "APPs" gives you "AnyWhere" access	<p>PLC & SCADA-HMI System:</p> <ul style="list-style-type: none">✓ Siemens✓ ABB✓ Schneider-Electric✓ Rockwell Automation <p>Instrumentations:</p> <ul style="list-style-type: none">➤ Emerson➤ Honeywell➤ Yokogawa	<ul style="list-style-type: none">• Siemens• ABB• Schneider-Electric <p>Capability to offer all range of</p> <ol style="list-style-type: none">a. Fabrication , LV & MV Switchgear Panels within quality, cost, On-Time Delivery and safetyb. RITTAL MAKE PLC Panelsc. VFD Drive Panels



Design & Engineering

Our Expertise

- **Integration with Level-0 Field Instruments & Sensors**
- **Motor Control Center (MCC), PCC, LV Switchgear, VFD Panels**
- **Level-1 PLC/DCS Automation System: Application Logic and SCADA / HMI**





Design & Engineering: Product

Our Product Range
with

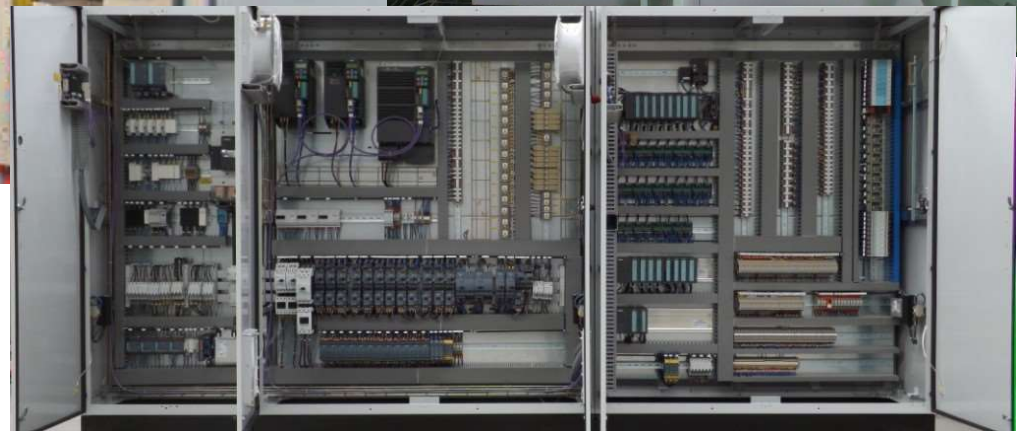
PM Control & Equipment Pvt. Ltd.

<http://www.powermanagement.co.in/>





Design & Engineering: Product



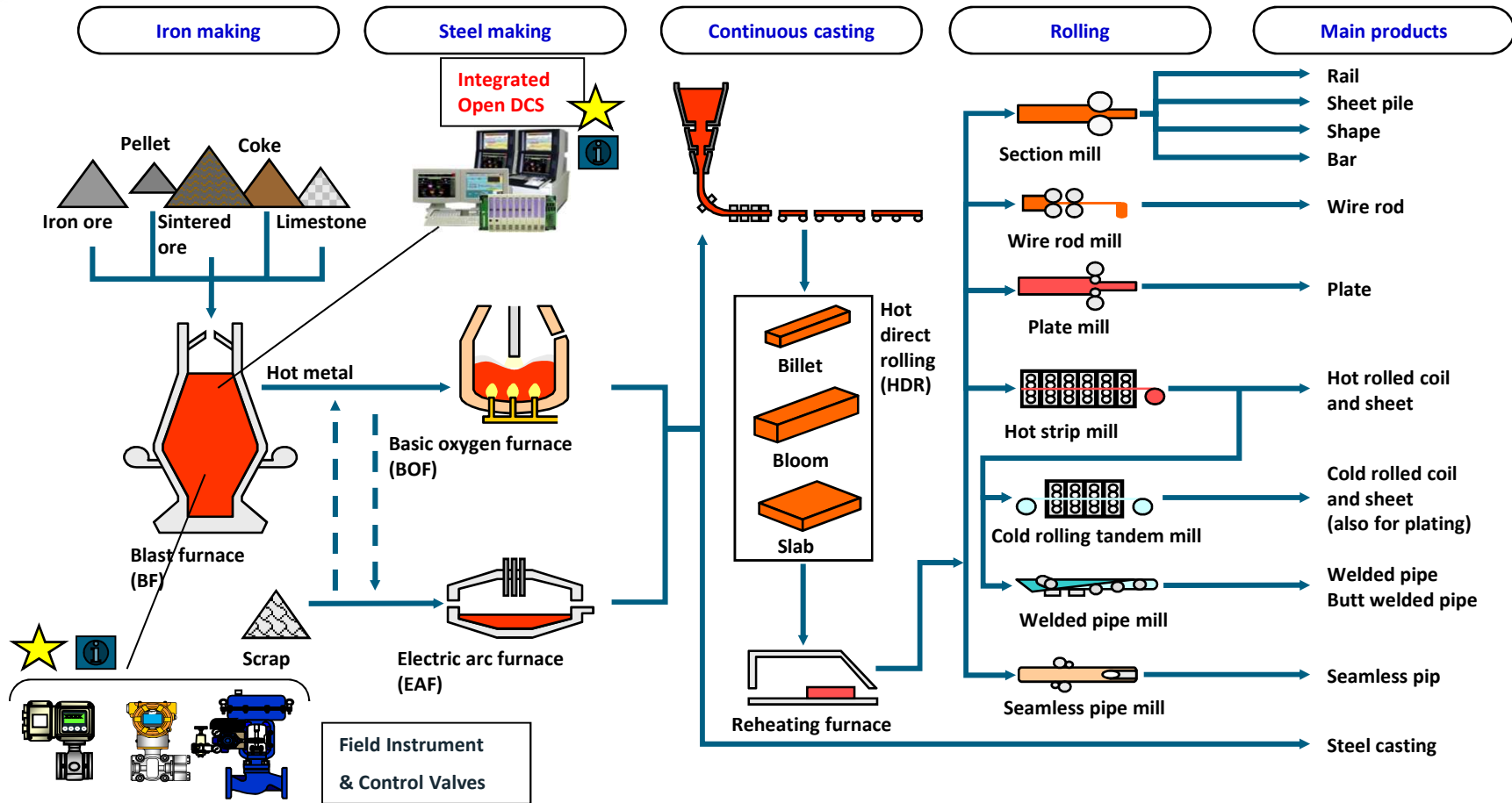
Our Product Range
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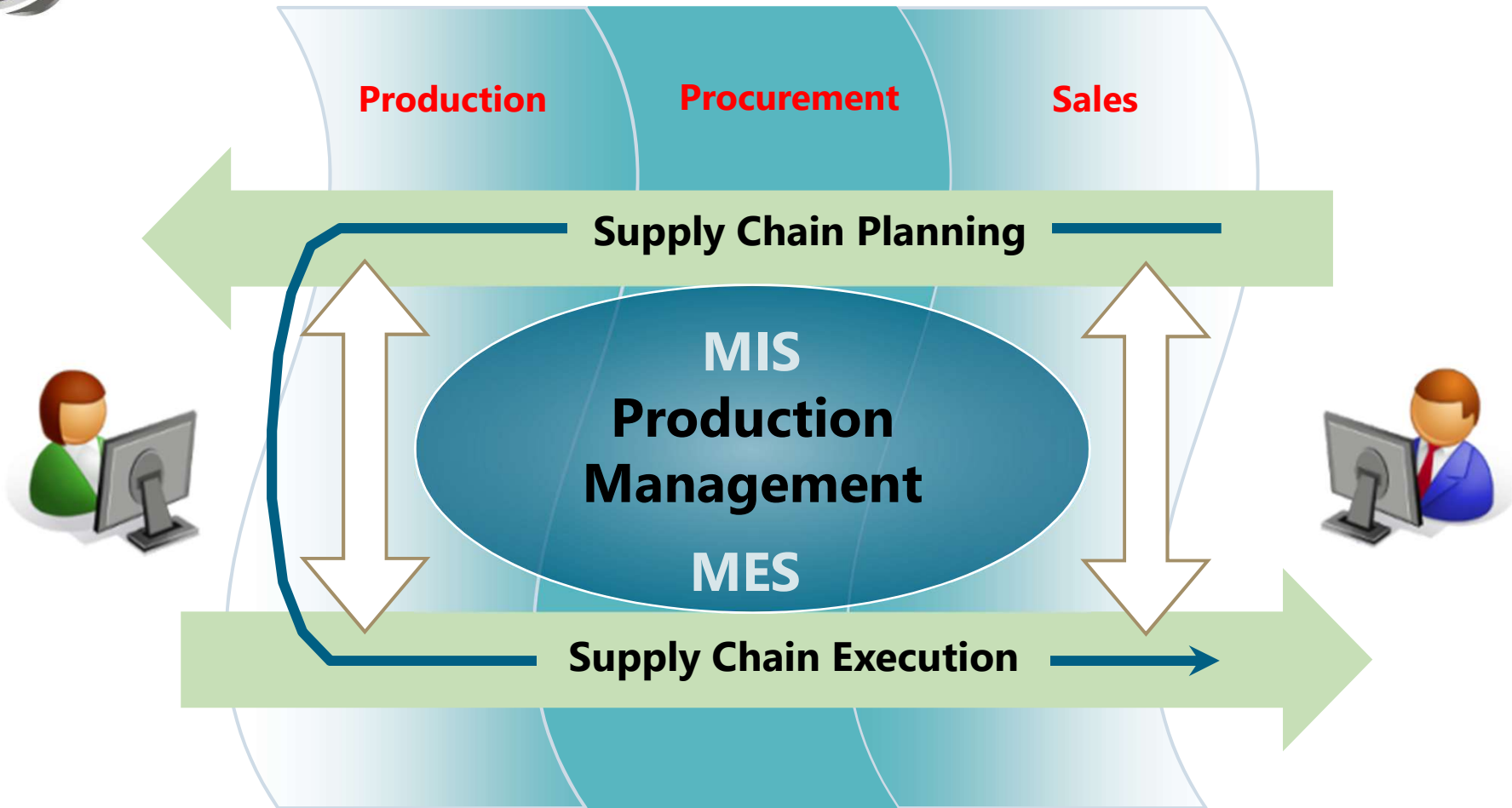
Various Processes & Platforms



Production Management



Production Management





Supply Chain Management

Order Processing

Sales Order
Received

Sales Order
Entry

Production
Validation

Production
Costing

Production
Order to Plant

Scheduling

Order Scheduling &
Material Allocation

Caster &
Melt Shop
Scheduling

Plate & Steckel
Mill
Scheduling

Plate & Coil
Finishing
Scheduling

Production Planning

Master
Planning

Capacity &
Campaign
Management

Raw Material
Planning

Plate & Coil
Combination

Production Execution & Material Logistic

Production
Order
Life Cycle

Material &
Stock
Management

Schedule
Execution
Management

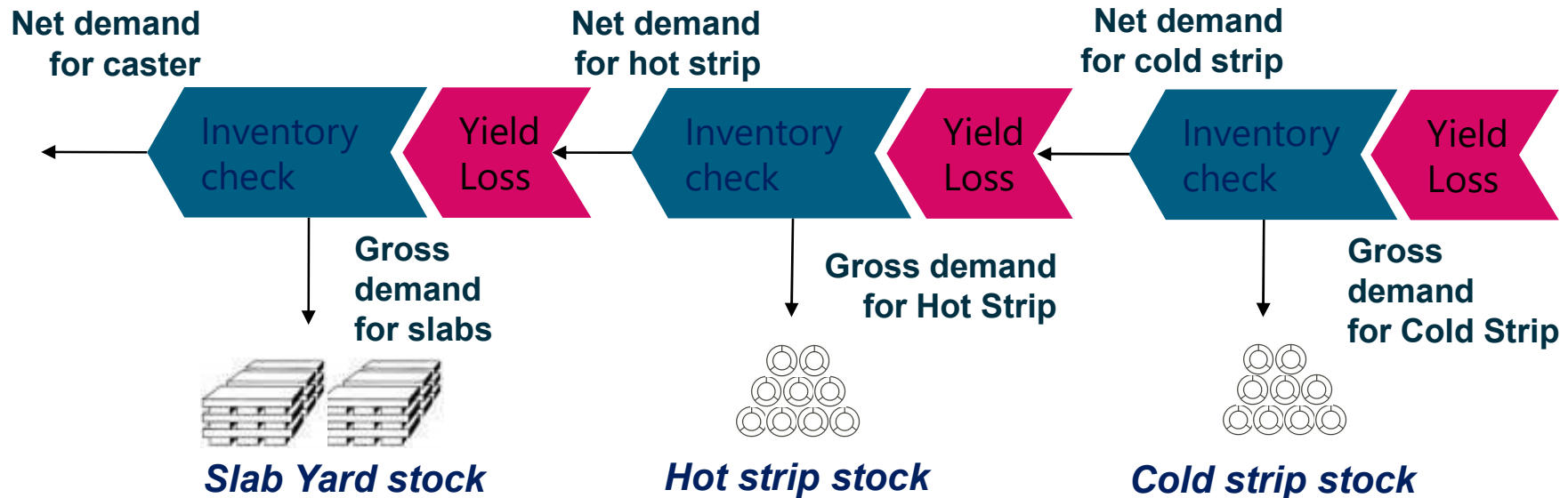
Production
Tracking

Quality Control
& Deviation
Management

Warehouse &
Transport
Management



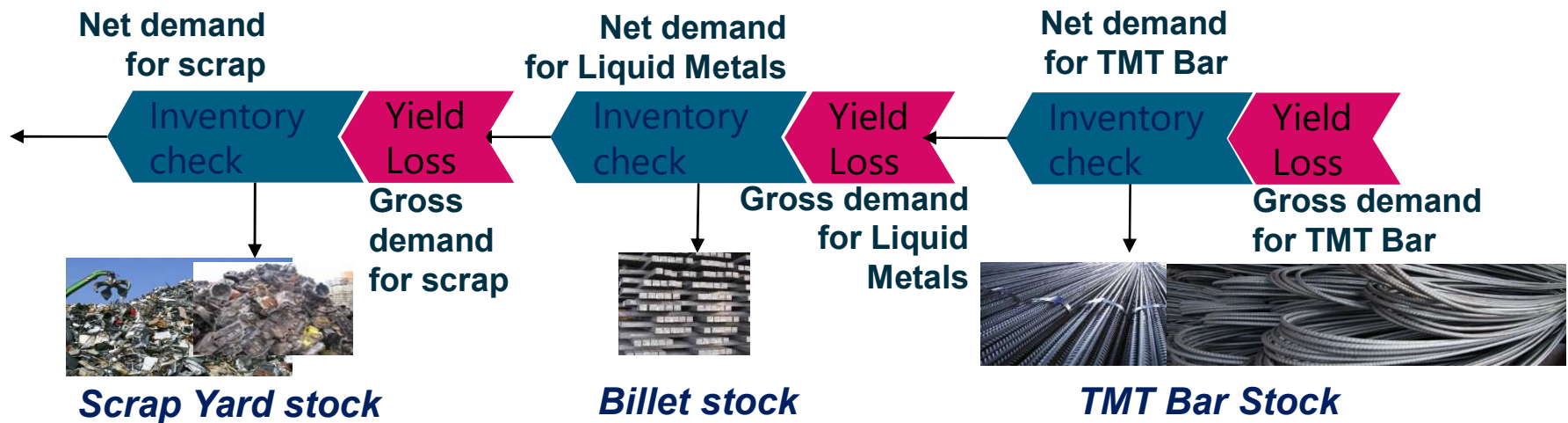
Material Planning – Net Demand Calculation



- Checking of available inventory (automatically or by manual interaction)
- Customizable, individual matching of order and material based on attributes level for each production step
- Calculation of remaining net demand backward
- Aggregation of small order quantities (e. g. for heat completion)



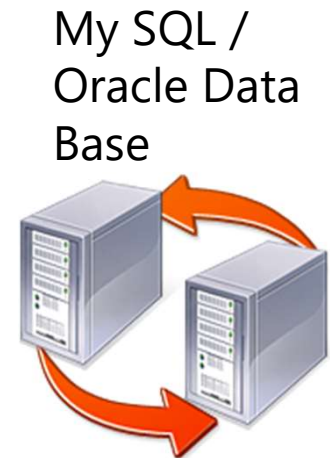
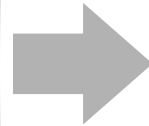
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Technical Data Warehouse



- Checking of available inventory (automatically or by manual interaction)
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- Calculation of remaining net demand backward
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Steel Grade Analysis & Reports

Grade Process History Reports

- Product Grade-Wise Grouping report
- Caster Product Grade History report
- Rolling Product Grade History report

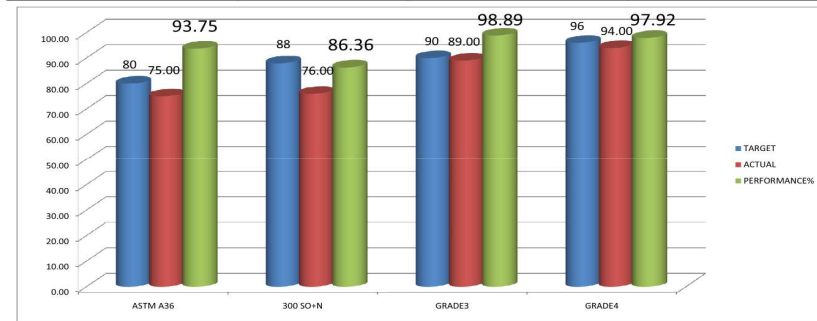
Sample Reports

- Single Sample Report based on Sample No.
- Group-wise Sample Reports based on order No.
- Customer Required Sample Report

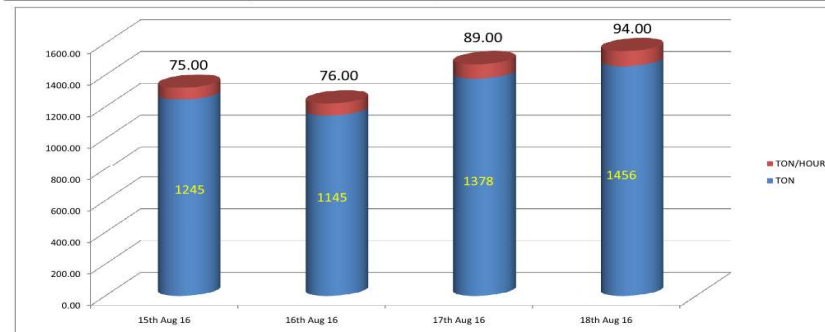
Quality Performance Report.

- Grade-wise Performance report
- Day-wise Performance report
- Weekly Performance report
- Monthly Performance report

GRADE	TARGET	ACTUAL	PERFORMANCE%
ASTM A36	80.00	75.00	93.75
300 SO+N	88.00	76.00	86.36
GRADE3	90.00	89.00	98.89
GRADE4	96.00	94.00	97.92



DATE	TON	TON/HOUR
15th Aug 16	1245.00	75.00
16th Aug 16	1145.00	76.00
17th Aug 16	1378.00	89.00
18th Aug 16	1456.00	94.00





Purchase vs Sales: Yield is very important

Comparison Reports:

Current vs Previous Heats

- Used Raw Materials
- Electricity Consumption

Final Production

- Production of TMT Bar (Tons) per Heat
- Production (Tons) per day
- Down Time per day
- Performance Analysis respect to previous day

Production Cost of Liquid Steel for Every Heat

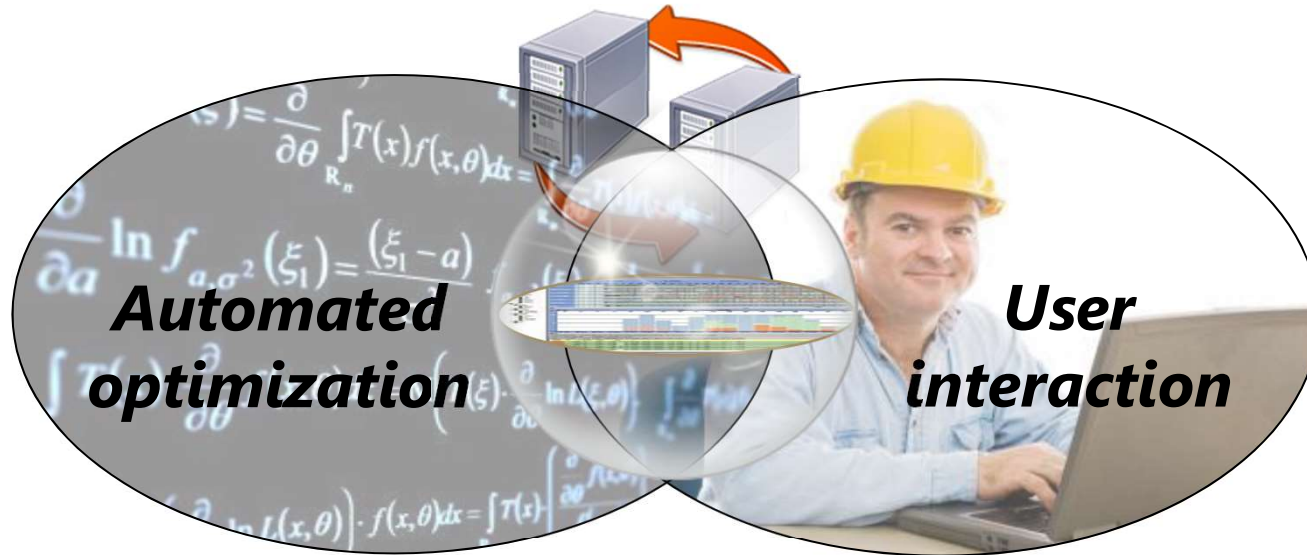
- Average YIELD Calculation of the DAY
- Scrap Vs TMT Bar / Rod (% Yield Loss)
- Day Performance Analysis to Calculate Minimum Selling COST of TMT Bar / Rod

Mill MISTAR



MILL MISTAR

MILL MISTAR – WZT Floor Manager for Mill Information, Scheduling, Tracking And Reporting



Email Gateway

SMS Gateway

Mobile Gateway



MILL MISTAR



*Different Control Platform
Different Vendor
Different Protocol
Different Language
Different Network
Different Process*



*MILL MISTAR
Understands All Heterogeneous System
Collects Process Information To Management
Act as a Process Interpreter
Passes Information from One to Another
Track & Control the Process*



MILL MISTAR

Benefits:

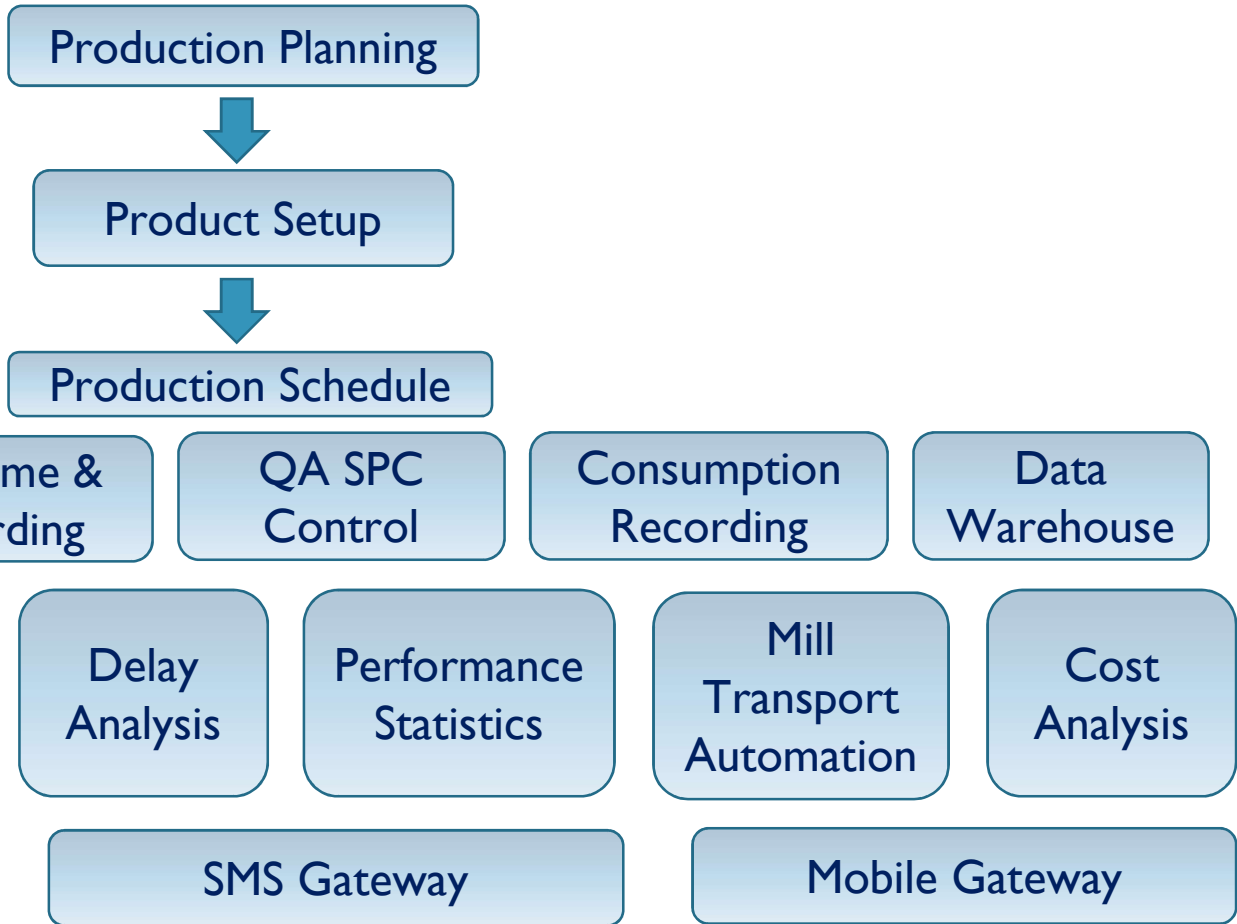
- Centralized Process Control Structure
- Standard Mill Advance Scheduler Setup and Practices
- Shop Floor Material Tracking
- Automatic Production Scheduler Parameter Passing
- Measurement
 - Quality
 - Operation performance
 - Consumptions
 - Product change efficiency
- Effective Roll Shop Management
- Real time production monitoring
- Comprehensive production performance analysis and reporting
- Production cost analysis and prediction
- Data Warehousing

The tracking system can log

- *The start and end time of each batch rolling (cast)*
- *Billets charged and rolled*
- *Charge Weight*
- *Number of bundles or coils*
- *Produced weight*
- *Scrap material weight*
- *Shift production summary*
- *Rolling speed (m/s)*
- *Gap time (between billets)*
- *Number of billets rolled each hour and best hour*
- *Availability*
- *Weight per meter*



MILL MISTAR





MILL MISTAR

Production Reports

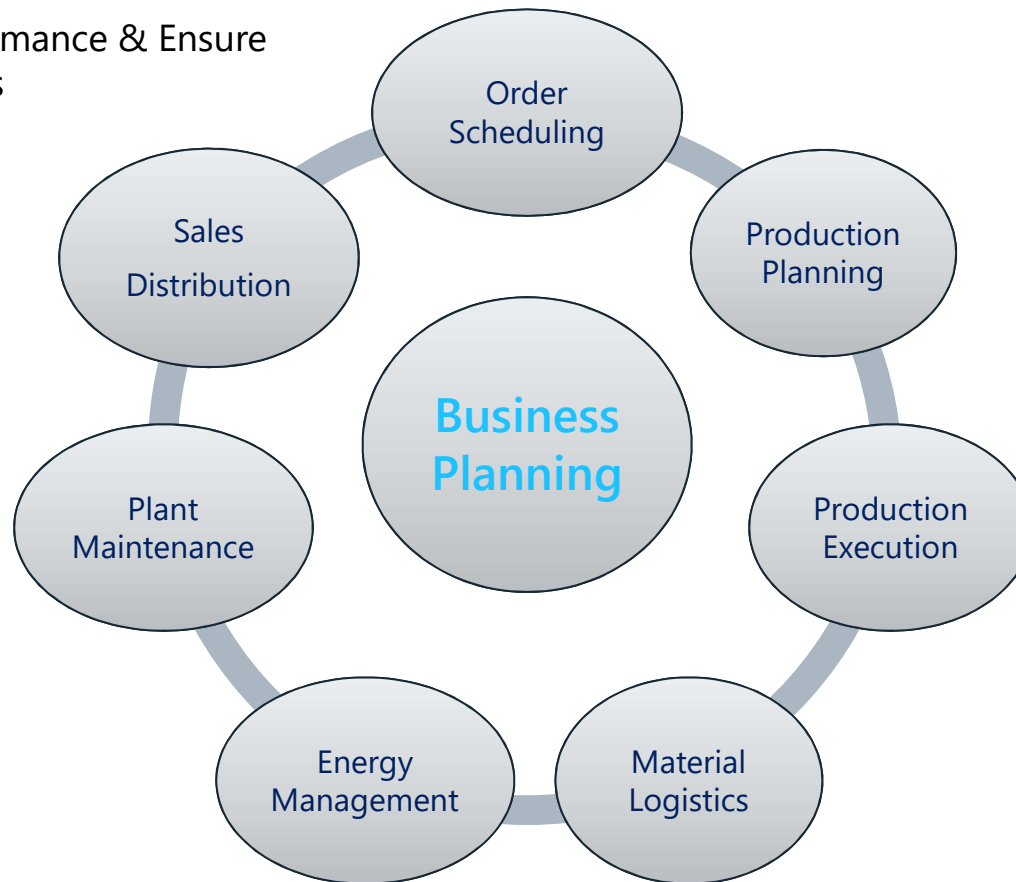
The report can be categorized as below

- **Shift Report**
- **Daily Production Report**
- **Weekly Production Report**
- **Monthly Production Report**
- **Production Performance by Product, Campaign, Product Group and Shift**
- **Size change analysis reports**
- **Planned maintenance time analysis reports**



MILL MISTAR

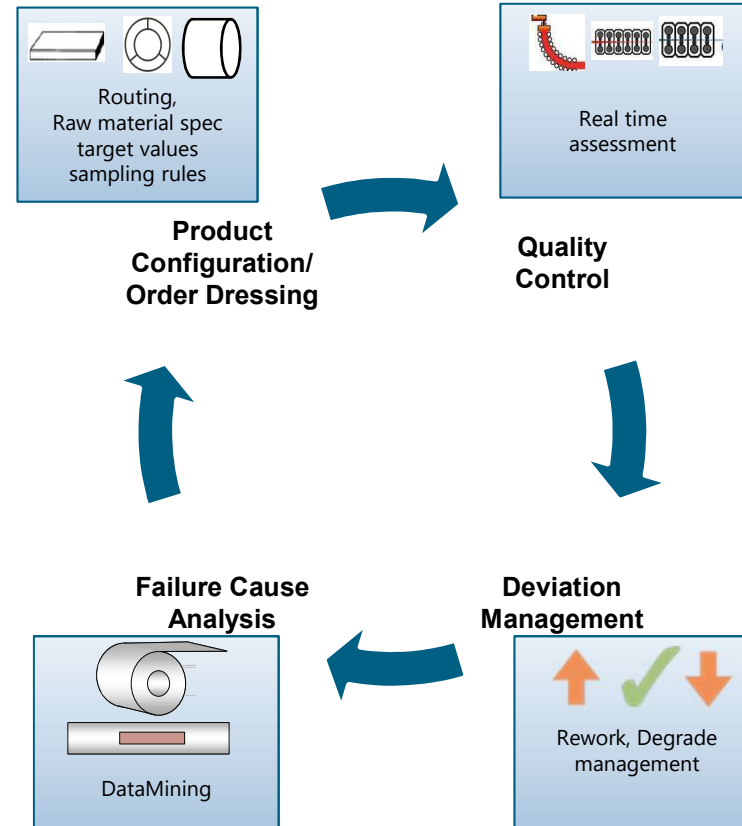
Maximize Performance & Ensure Competitiveness





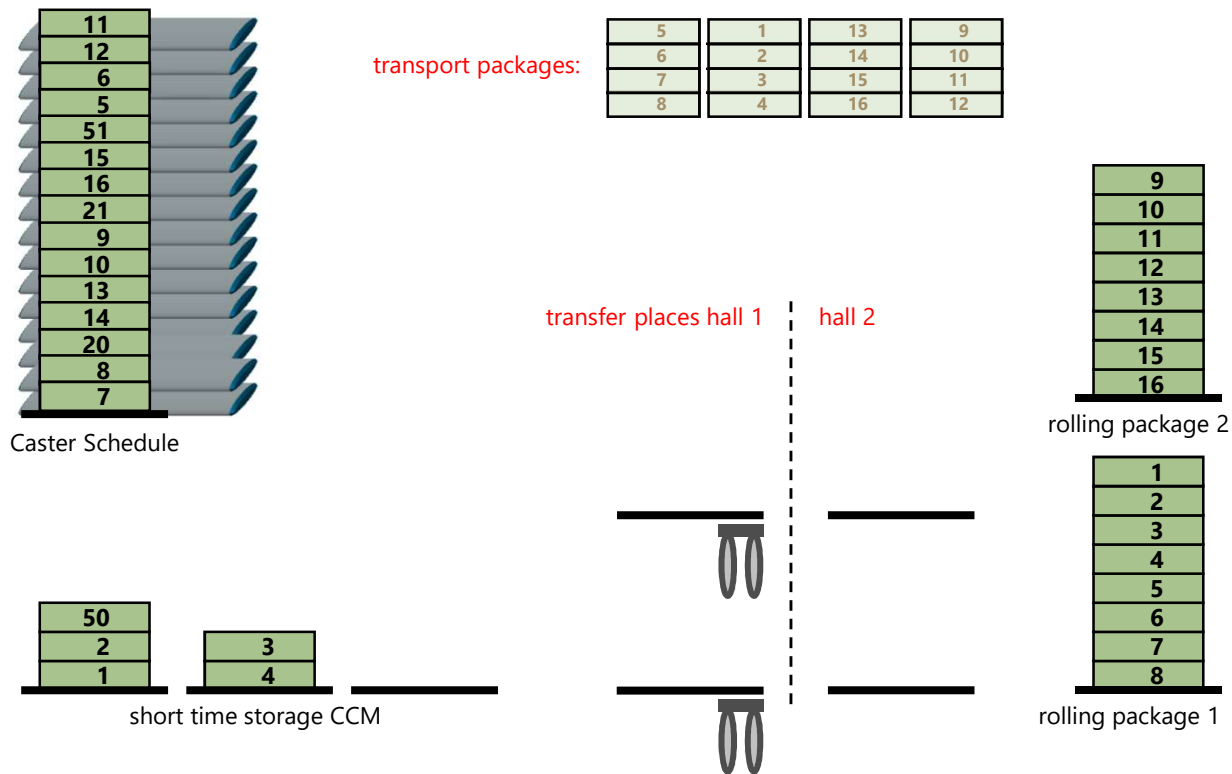
Process of Continuous Improvement

- Integrated and comprehensive quality management functionality
- High agility in the closed loop of
 - Definition of quality targets
 - Realizing quality issues
 - Analyzing causes
 - Adaption of targets
- Specialized for specific requirements in metals industry
- Easy integration with SAP QM based on standard interfaces





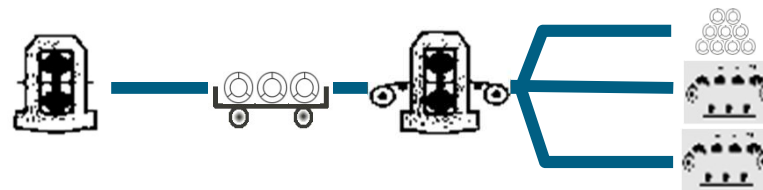
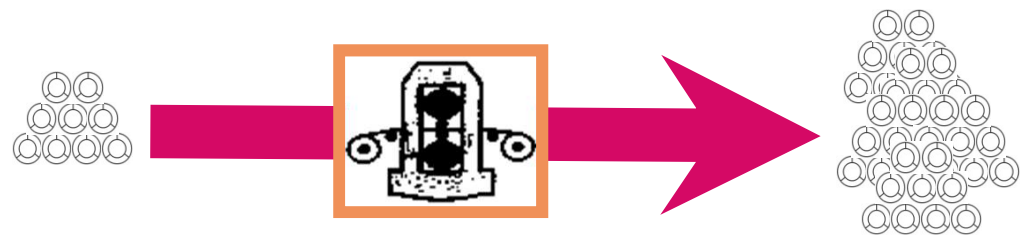
Transport Optimization by Integration of Scheduling and Material Logistic





Logistics: Main Objectives

- You always know where the material is located
- Minimization of material movements by storage materials in proper order
- No downtime due to logistic reasons
Material supply & material return for all lines
- Reduce costs by increased throughput and optimized warehouse & transport management between lines & plants



Case Study # 1

Mill Transport Automation



Mill Transport Automation

Plate Warehouse



Coil Warehouse



Quickly & cost effectively product shipment required for better warehouse management

Well planned shipment schedule reduce product handling cost & time



Mill Transport Automation

- Synchronize Customer, Sales, Production, Transport Vehicle
- Real time monitoring plant production trends.
- Supply chain leaders to predict and plan for their order shipment.
- Do more business with proper warehouse space utilization.
- Reduce warehouse operating cost
- Make proper customer interaction
- Vehicle controlling & tracking inside plant premises
- Customization as per plant requirement.



Mill Transport Automation

Manpower
Limitation

Warehouse
Space
Limitation

Vehicle Road &
Parking
Limitation

Transport Vehicle
Limitation

Mill Transport Automation(MTA)

Resource Auto Synchronizer

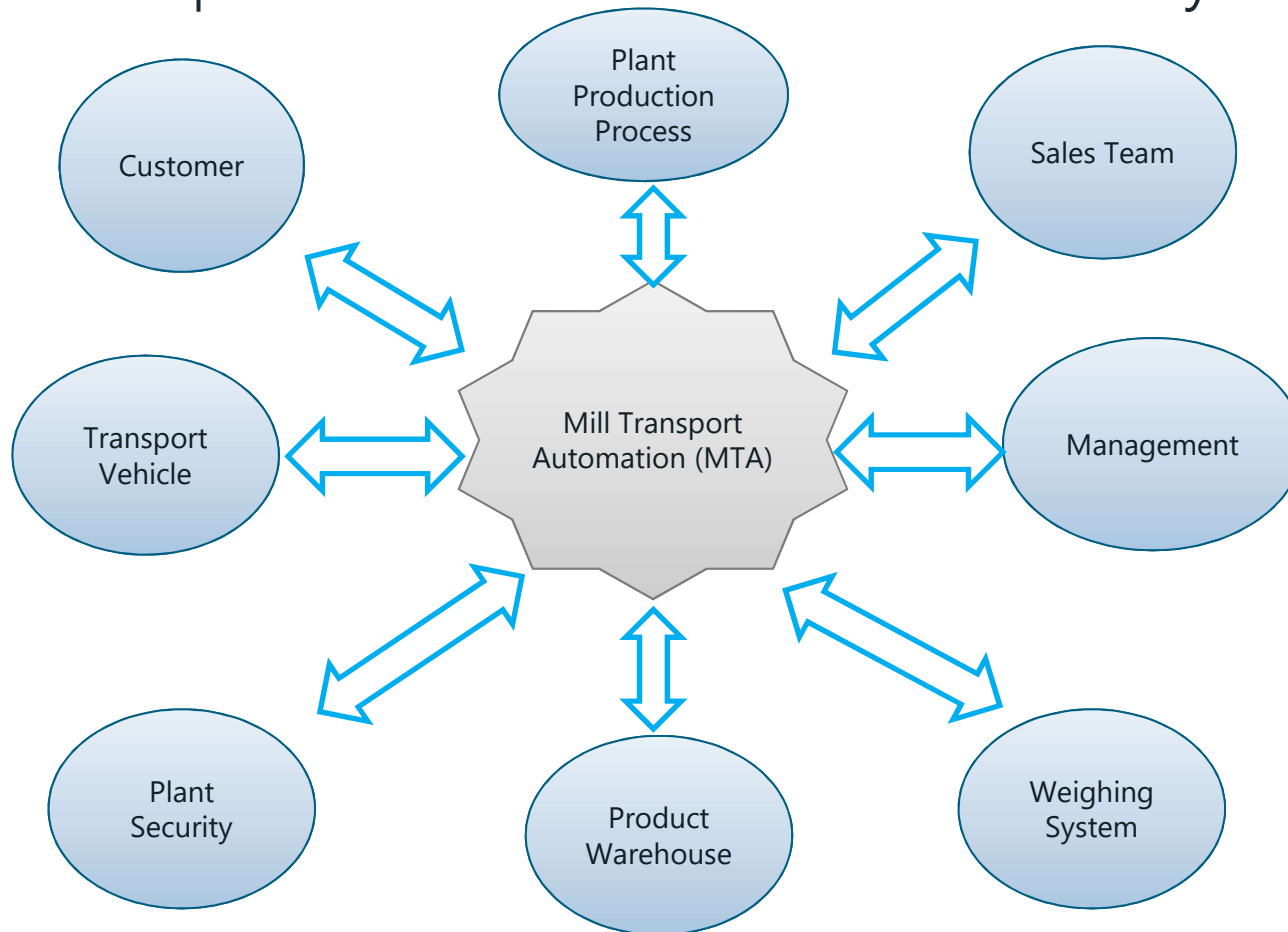
Reducing Cost & Time

More Profit





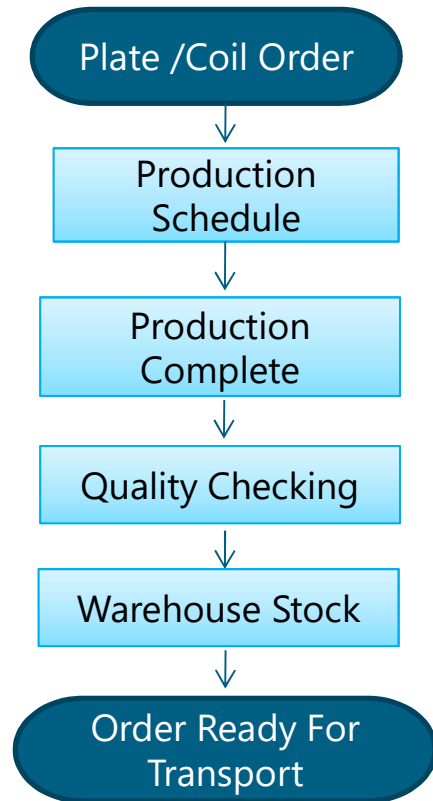
Mill Transport Automation – Resource Auto Synchronizer



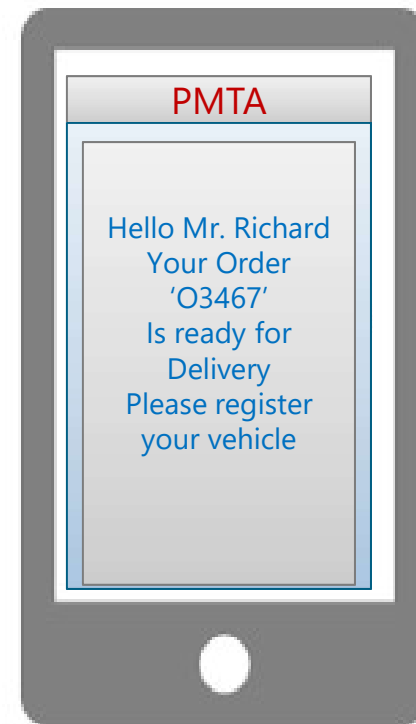


Mill Transport Automation

Production Process Flow

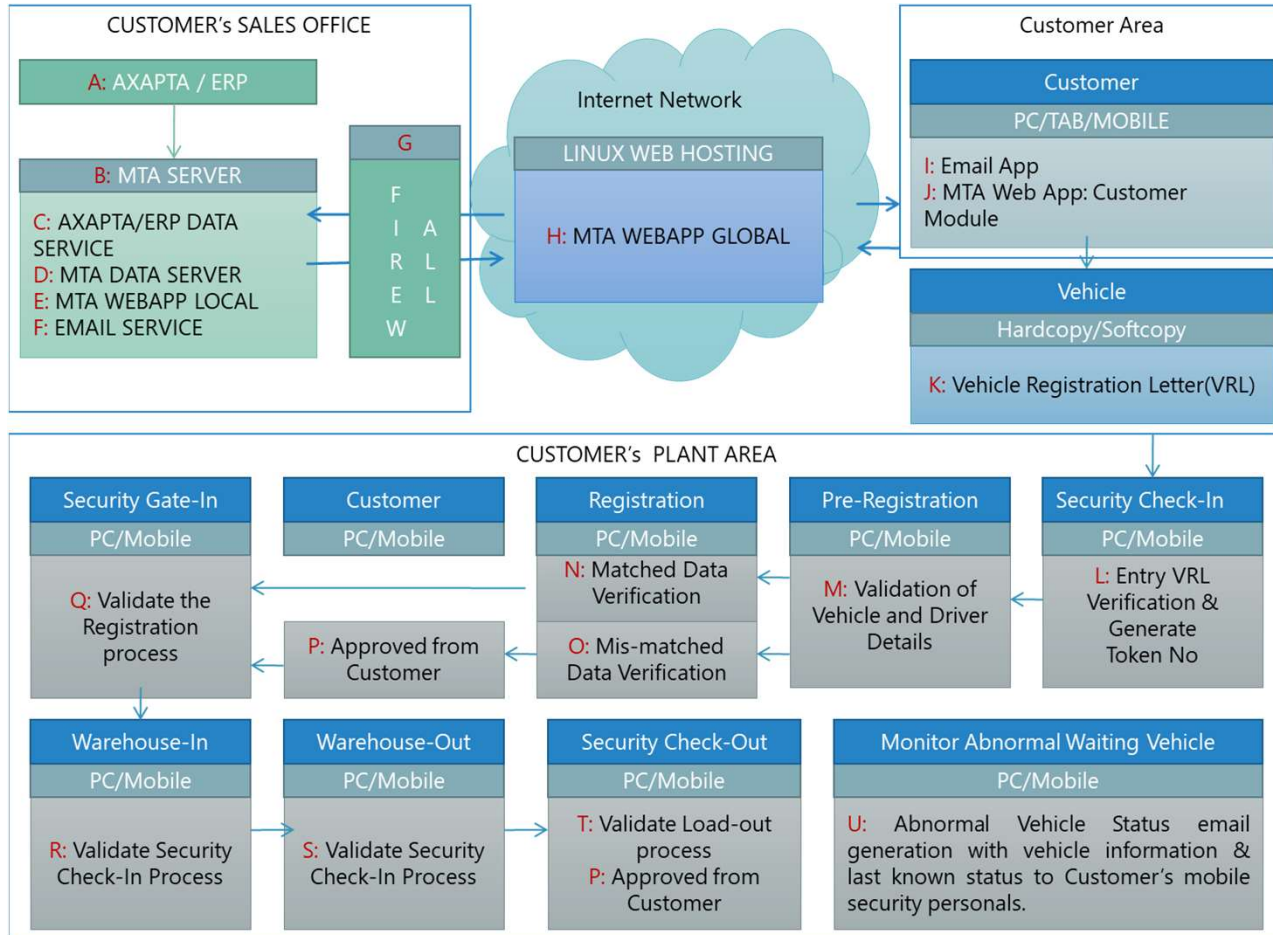


Interaction with registered Client



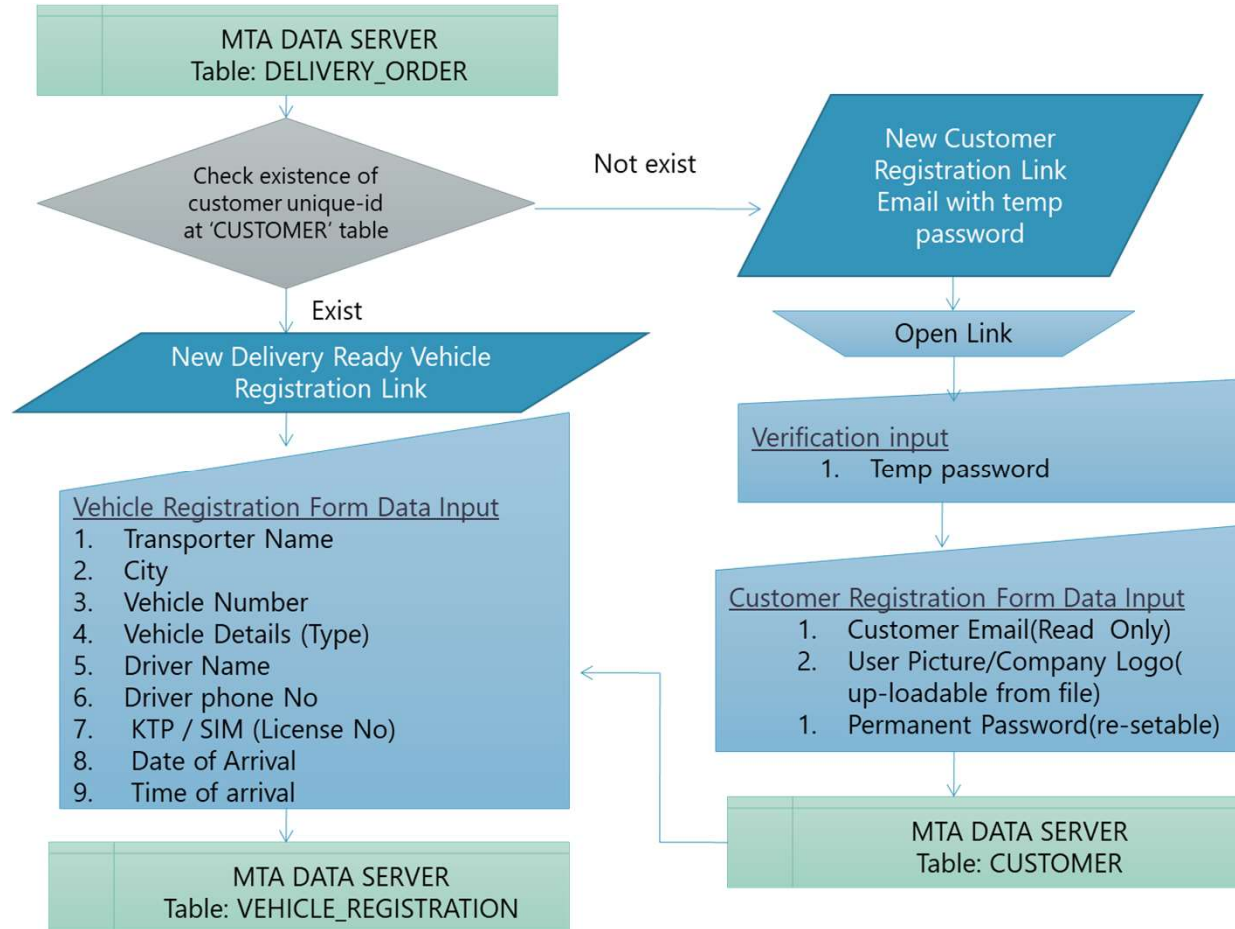


Mill Transport Automation System Flow



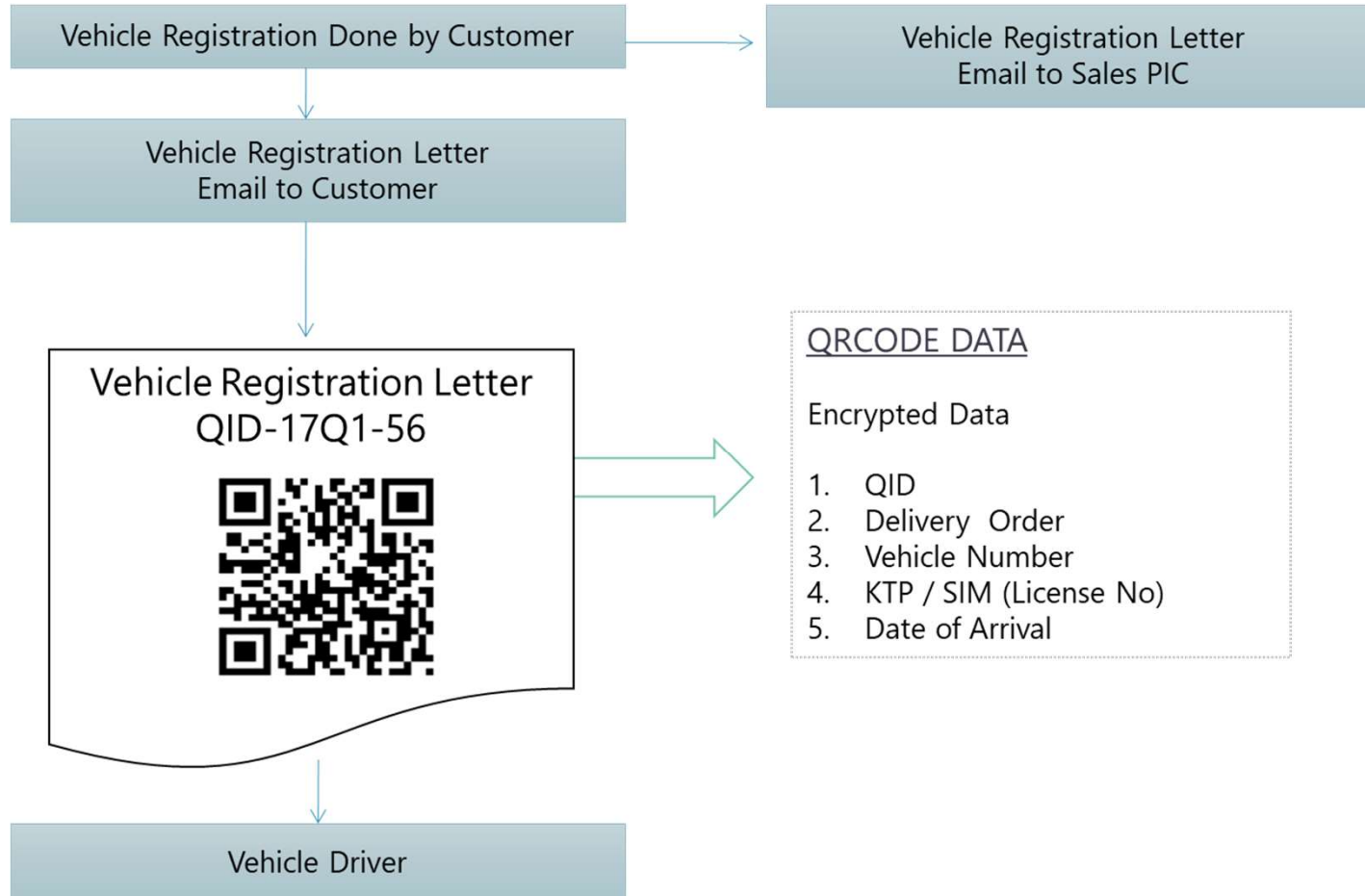


Vehicle Registration Flow Chart



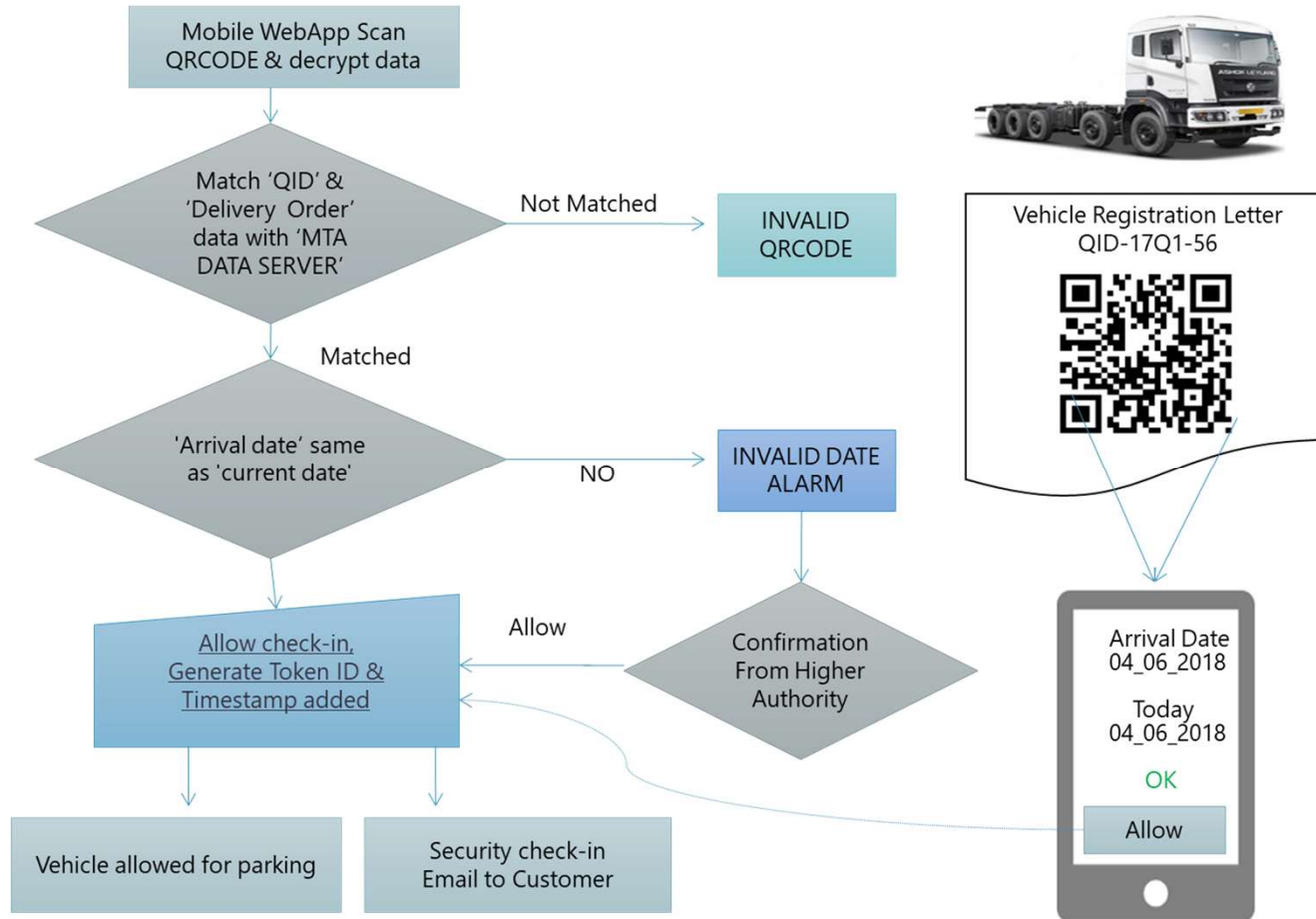


Vehicle Registration Letter



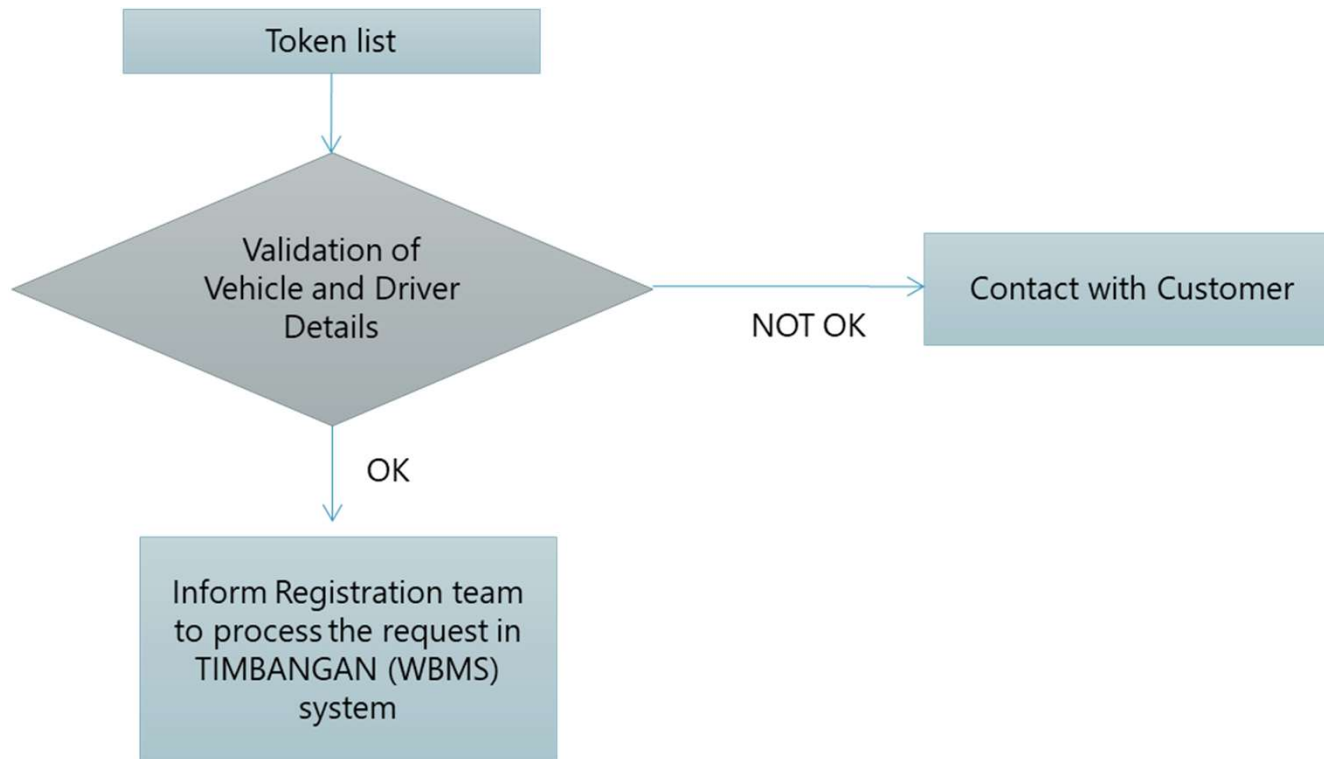


Security Check In



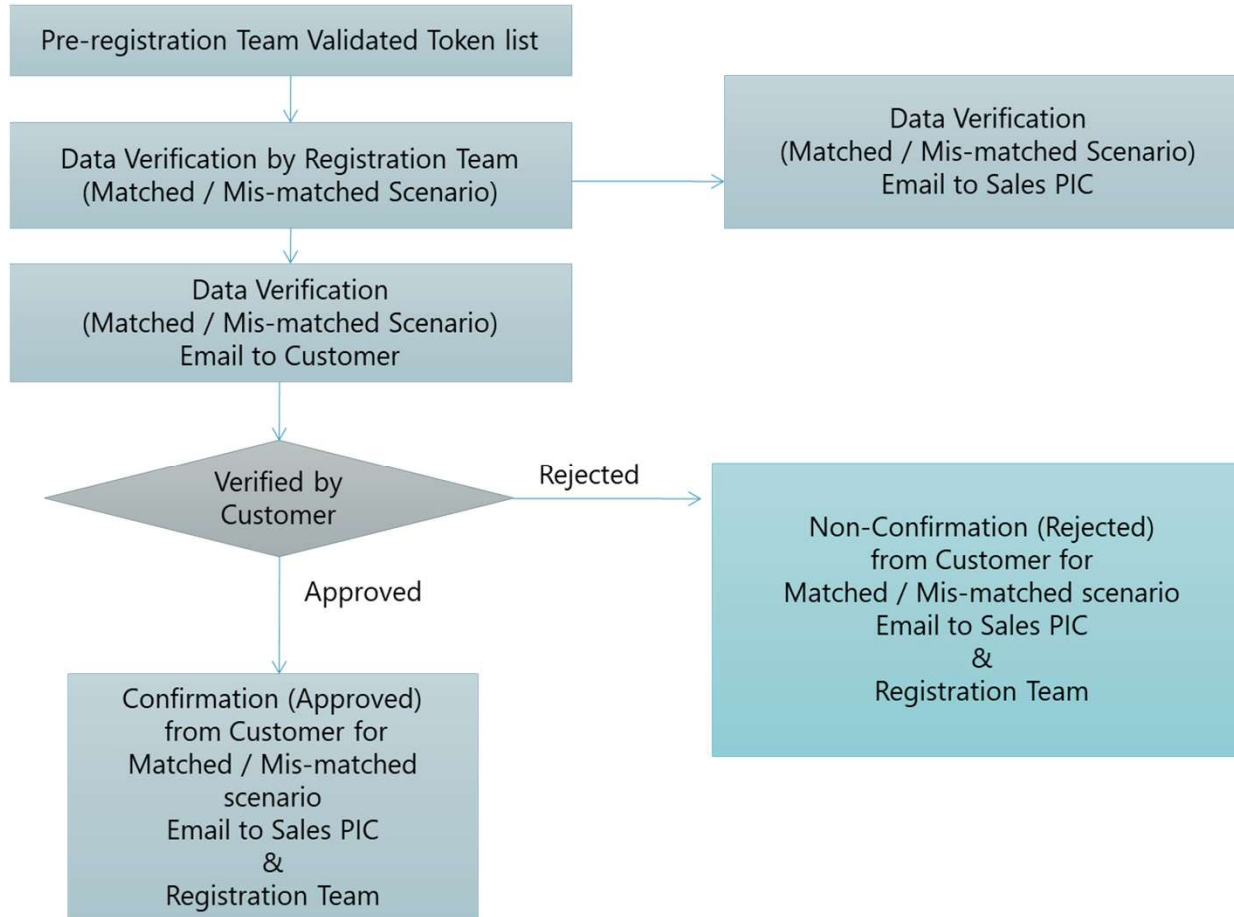


Pre-Registration Team



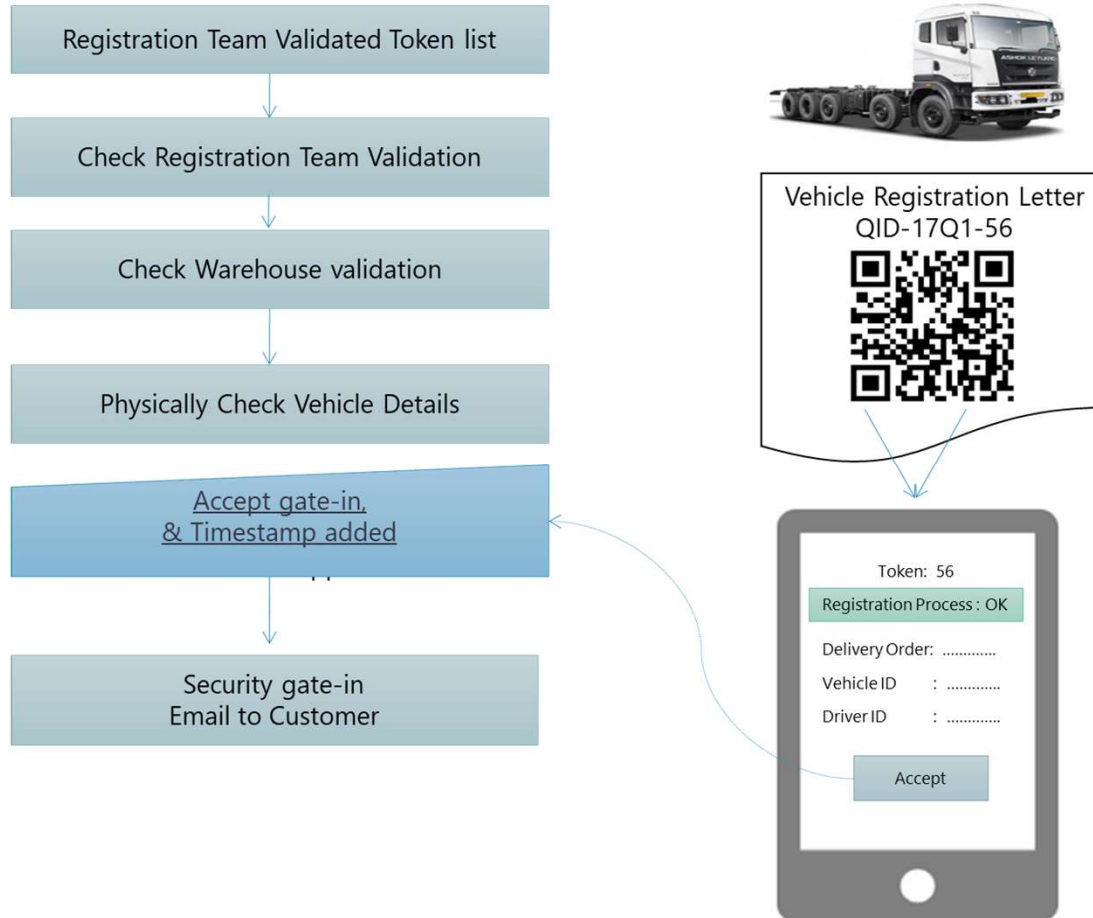


Data Verification by Registration Team & Client



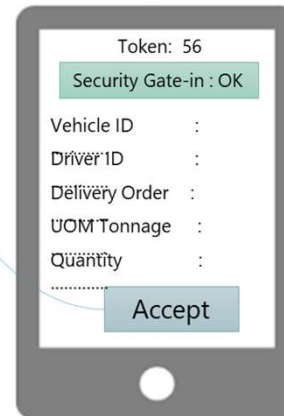
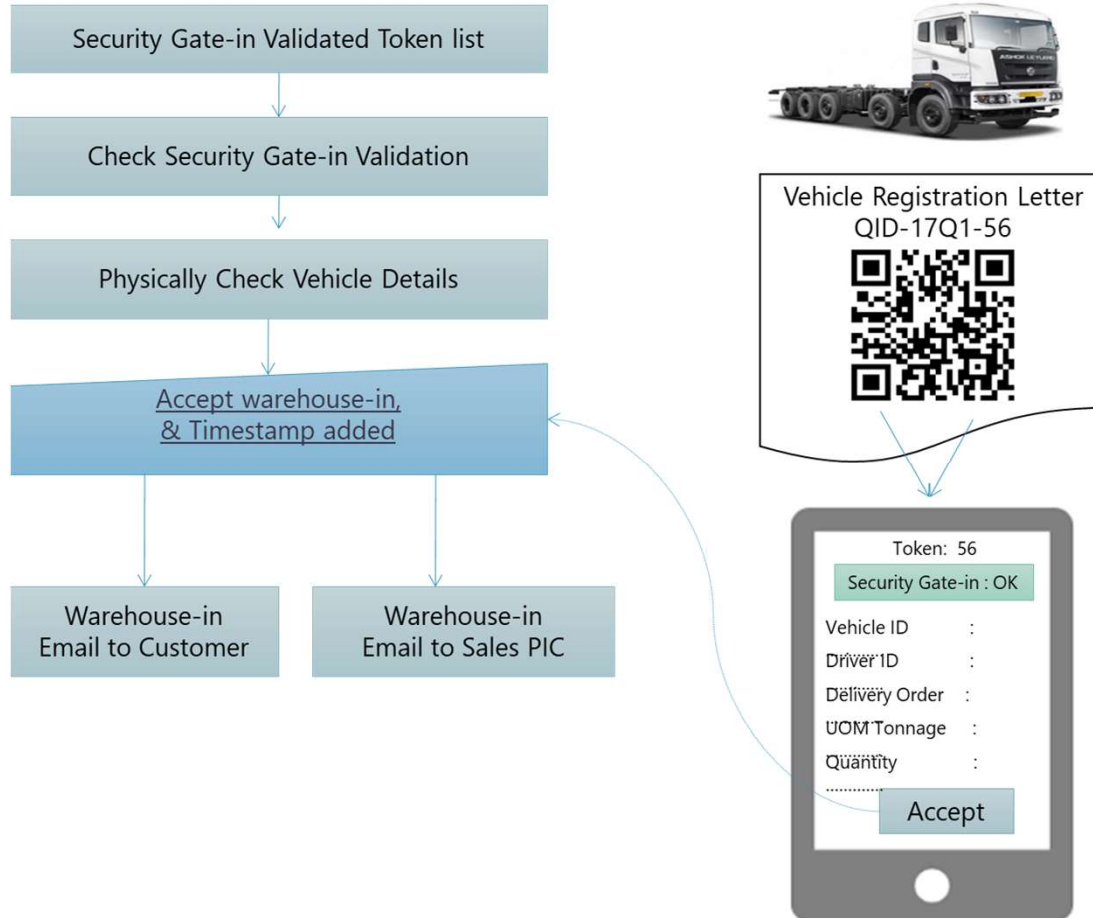


Security Gate In



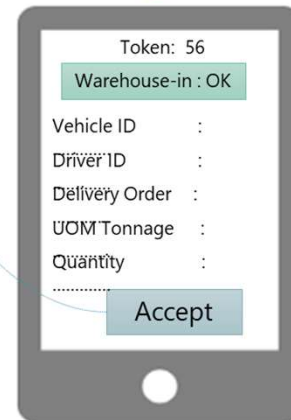
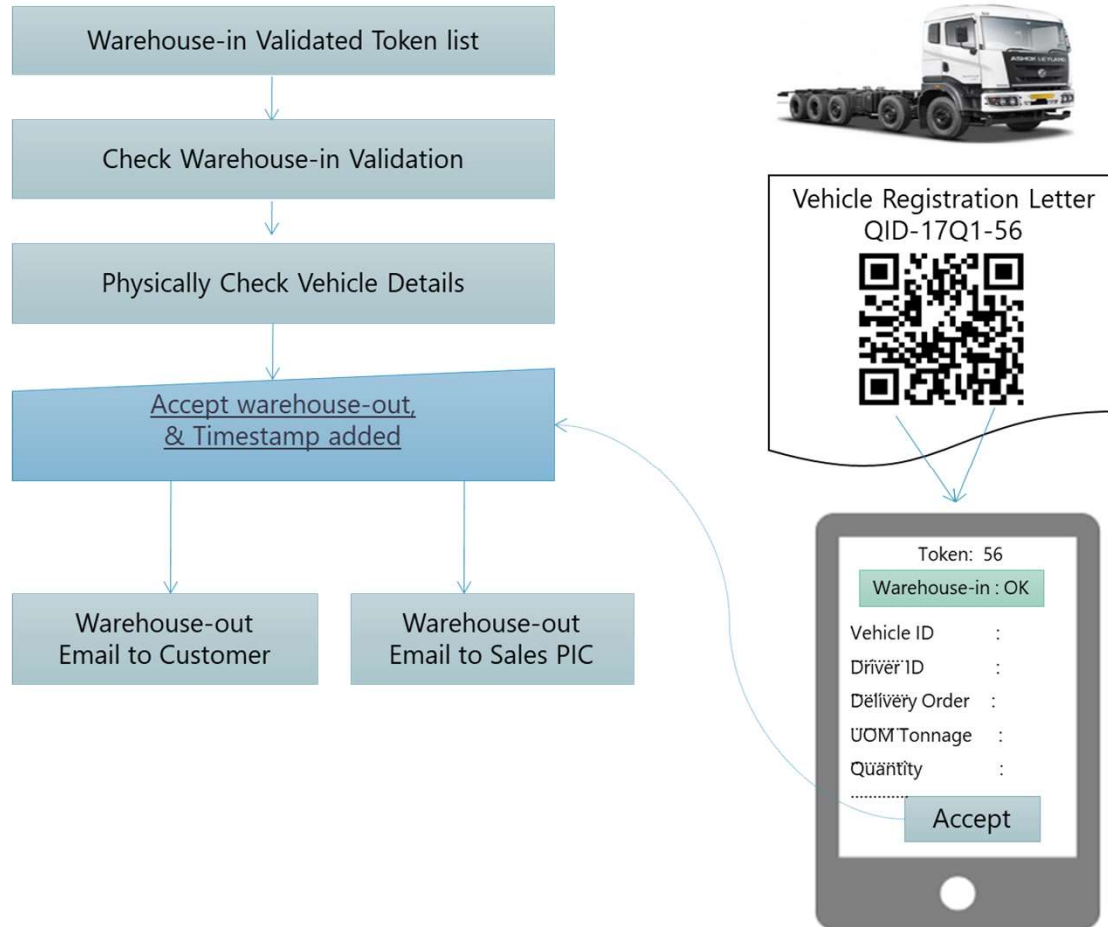


Warehouse In



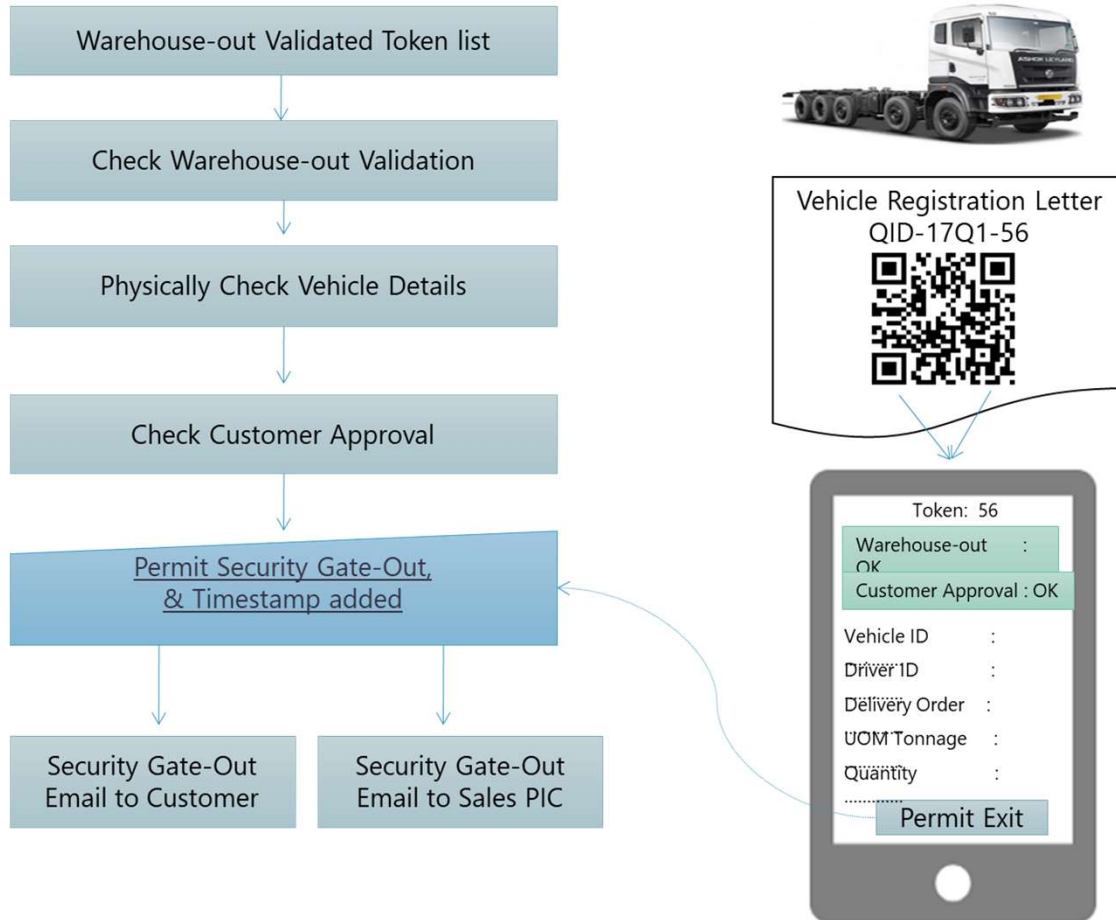


Warehouse Out





Security Gate Out (Check-Out)





Monitor Abnormal Waiting Vehicle

Pre-Registration Team, Security Gate-In, Warehouse-In, Warehouse-Out, Security Gate-Out (Check-Out) personnel monitor token list queue.



If vehicle abnormal delay detecting



Personnel shall click Vehicle Checking Button



Abnormal Vehicle Status email generated automatically with vehicle information & last known status to Customer's mobile security personnel



Cloud Web Hosting

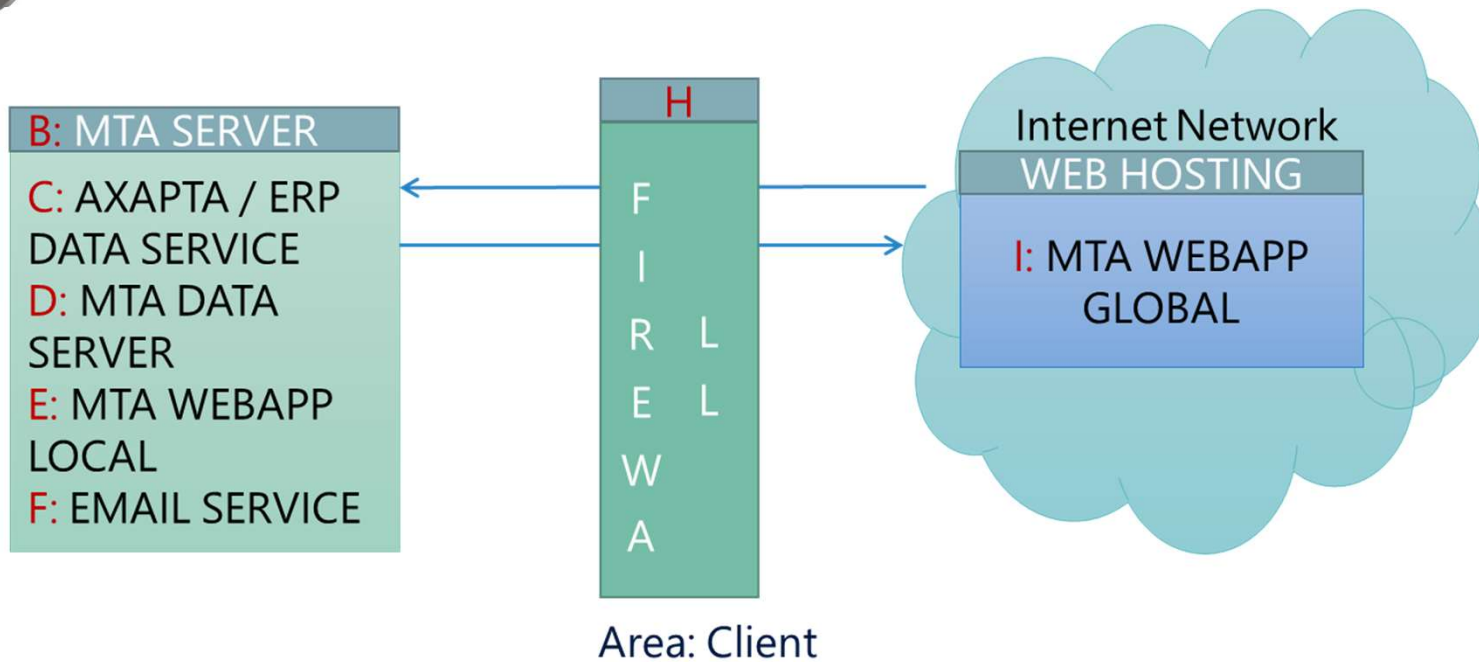
Area: Client

Client will provide:

1. Domain Name
2. Cloud Server Space/Normal Linux Hosting Space (Min 50 MB approx) with Static IP



H: Firewall



Client will setup firewall which will permit only MTA Web Hosting Server IP to access the MTA LOCAL DATABASE SERVER from outside.

Questions





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