



TECHNICAL OVERVIEW

A capability-level architectural and technical view for evaluation teams.

A strategic partnership between ESSBC and CVZOnline

Technical scope and design intent

Stellar is a modular industrial digital operations platform. It is designed to connect enterprise, production, quality, warehouse, distribution and field processes while preserving configurable governance and operational traceability.

Known technology baseline

PHP is used within the application layer.
Additional framework, database and infrastructure details remain to be confirmed.

Modular configuration

Functional components can be configured and extended around validated enterprise requirements.

Web-oriented architecture

The platform is positioned as a web-based operating environment with field access capabilities described in the supplied product material.

Integration readiness

External systems and operational devices may be connected through configurable interfaces subject to the selected deployment architecture.

Logical architecture

The current technical view uses capability-level layers and deliberately avoids unverified product-stack claims.

Experience layer: executive, office and field users

Application services: workflows, controls and business rules

Industrial domains: production, quality, warehouse, sales and fleet

Integration services: APIs, messaging and device connectivity

Data and infrastructure: operational records, security and hosting

Exact frameworks, database technology, hosting topology and protocols will be inserted after technical confirmation.

Core functional domains

The source material describes twelve connected components operating as one coordinated platform.

1. Procurement

Suppliers, materials, purchase requests, receipts and payment records.

2. Inventory

Raw materials, finished goods, transfers and real-time stock visibility.

3. Manufacturing

BOM, production plans, daily output and lean-production controls.

4. Quality

Physical, chemical and microbiological checks and non-conformance.

5. Fleet and loading

Routes, vehicles, loading, residual stock, fuel and maintenance.

6. Sales

Journey plans, orders, invoicing and controlled field execution.

7. Distribution and CRM

Customer activity, territories, notifications and loyalty context.

8. Finance

Settlements, receivables, profitability, invoices and customer statements.

9. Work control

Users, roles, customers, assets and operational supervision.

10. Analytics

Dashboards, heat maps, clusters and exception-oriented monitoring.

11. Coupons

QR-based coupon lifecycle and associated operational reporting.

12. Messaging integration

Customer document and notification flows including described WhatsApp integration.

Production, quality and traceability

Stellar links production intent with material availability, execution evidence and quality outcomes.

Product definition

Bills of material define expected inputs and support controlled product costing.

Production planning

Plans can be aligned with available materials, stock position and expected demand.

Execution records

Daily production and material movement establish a traceable operating record.

Quality controls

Quality results and non-conformance records support controlled release and investigation.

FIFO practices

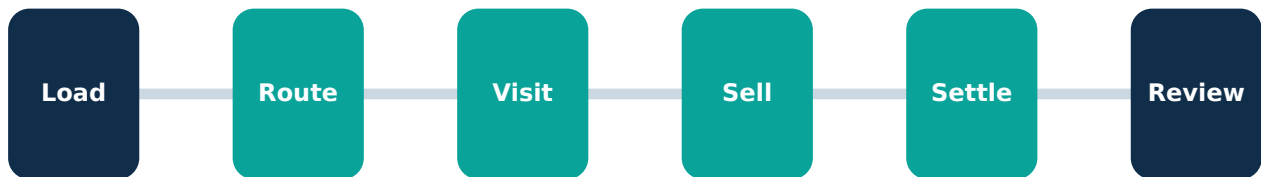
Inventory processes support first-in-first-out handling and expiry-risk reduction.

Management visibility

Deviations can be surfaced through reporting and exception-oriented supervision.

Distribution and field operations

Distribution capabilities connect customer activity, field execution, vehicle loads and financial settlement.



- Vehicle load and residual stock records strengthen accountability.
- Journey planning and territory controls improve field coverage.
- Invoices, returns and collections connect directly to customer records.
- Daily settlement closes the operational and financial loop.

Data, access and audit principles

The source material supports a general security and governance statement; detailed controls will be validated in the next revision.

Role-based access

Access can be separated by role, responsibility, region and operational function.

Operational traceability

Transactions and status changes should retain sufficient evidence for review and accountability.

Data integrity

Controlled master data reduces conflicting product, customer, supplier and pricing records.

Archiving and retrieval

Invoices and operational records are retained for later retrieval according to the configured environment.

Segregation of duties

Approval and execution responsibilities can be separated according to enterprise policy.

Deployment-dependent controls

Encryption, backup, disaster recovery and monitoring depend on the confirmed hosting design and service model.

Integration architecture

Stellar is intended to operate as part of a broader industrial ecosystem rather than as an isolated application.

Business systems

Integration with finance, ERP, CRM or specialist systems through agreed interfaces.

Operational technology

SCADA and IoT connectivity may be enabled where devices, protocols and project scope are confirmed.

Payments and taxation

Financial and tax processes can be configured around the operating jurisdiction and approved integrations.

Messaging

Document and notification flows may use supported messaging channels.

Identity

Authentication and identity integration depend on customer infrastructure and security policy.

Data exchange

APIs, files, scheduled jobs or messaging patterns are selected according to the target architecture.

Integration capability is confirmed at design stage; specific connectors are not implied until validated.

Analytics and intelligent controls

Current source material describes dashboards, heat maps, data clustering, exception alerts and predictive ambitions. The final release will distinguish implemented analytics from roadmap AI functions.

Operational dashboards

Role-oriented views of production, inventory, sales, fleet and financial indicators.

Exception monitoring

Alerts focus management attention on deviations from configured controls.

Geospatial insight

Heat maps and customer clustering support territory and coverage analysis.

Pattern analysis

Data patterns may support identification of unusual returns, invoices or field behavior.

Demand insight

Historical activity can inform planning and replenishment decisions.

AI governance

Any automated prediction or recommendation must be validated, monitored and governed before operational reliance.

Deployment and non-functional model

The final topology remains subject to confirmation. This edition records the evaluation dimensions without inventing specifications.

Deployment options

Hosting model, tenancy and data isolation will be selected and documented per customer.

Availability

Target availability follows the approved infrastructure, support model and SLA.

Scalability

Capacity planning considers users, sites, products, transactions, integrations and reporting load.

Backup and recovery

Responsibilities, retention, recovery objectives and testing must be defined in the deployment plan.

Security operations

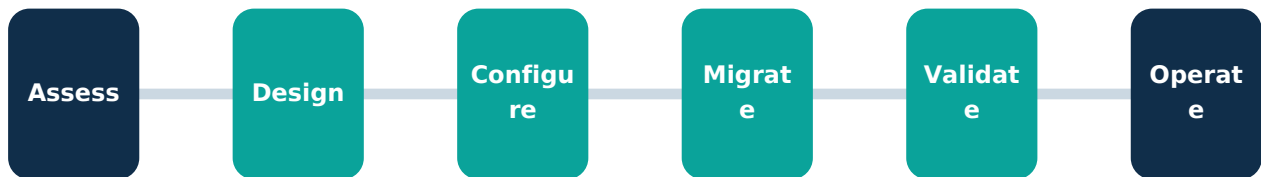
Monitoring, patching, vulnerability management and incident responsibilities must be assigned.

Performance

Response-time and batch-processing targets require measured baselines and acceptance tests.

Implementation lifecycle

A controlled implementation protects business continuity while progressively establishing reliable data and operating discipline.



- Assess operating processes, data quality, controls and integration dependencies.
- Design the target operating model, roles, interfaces and acceptance criteria.
- Configure modules and necessary customer-specific extensions.
- Migrate and reconcile master and transactional data according to scope.
- Run testing, UAT, training and controlled production transition.
- Stabilize support, reporting, governance and continuous improvement.

Technical evaluation checklist

The following items will be completed after the next factual-validation session.

Technology stack

PHP framework, frontend, database, runtime, reporting and mobile technologies.

Topology

Cloud provider, regions, tenancy, network zones and environment separation.

Security

Authentication, authorization, encryption, audit, testing and compliance evidence.

Integration

Available APIs, protocols, connector catalogue and actual SCADA/IoT references.

Operations

Monitoring, backup, DR, release management, support tiers and SLA.

Capacity

Reference sizing, proven transaction volume, users, sites and performance results.

This document is a technical overview, not a substitute for solution design, SRS or customer-specific infrastructure documentation.