Overview
TESISQUARE® connects people, technology and processes to empower collaboration among all players along the integrated supply chain. With over twenty years’ experience in supply chain, logistic and risk management software solutions for single enterprise and multi-enterprise networks, it has been growing steadily, providing comprehensive solutions to customers in 35 countries around the world.

TESISQUARE Platform is a multi-enterprise and collaborative solution to manage effective end-to-end supply chain visibility in complex business environments. It enables customers to design and monitor their own digital ecosystem enhancing cross-company collaboration, and developing deeper supplier relationships with seamless data flow integration of all transactions across the networked ecosystem.

Challenge
The supply chain is affected by many external factors, including supply shortages; regulatory and environmental compliance; weather and natural disasters; political or economic instability in a source country; exchange rates etc. Exchanging and sharing transactional data between all parties involved in a supply chain is the key to success. Although TESISQUARE does this successfully with its transactional platform, customer often struggled to deliver more sophisticated analytics for their business stakeholders from the rich detailed transactional data, as explained by Gianluca Giaccardi, Chief Product Officer, for TESISQUARE: “We introduced TESI Control Tower, a software suite within our TESISQUARE Platform to fill this gap. This is a dashboard designed to provide out-of-the box accurate and near real-time KPIs across the complex operating supply chain processes. Leveraging our experience, it increases supply chain performance by enabling faster decision-making.”

He continues: “We needed a data analytics solution to boost this data-driven approach for our customers and make it easy for them to have holistic complex process visibility at

At a Glance
- **Industry**: Software and Technology
- **Location**: Italy
- **Challenge**: Embed a state-of-the-art data analytics platform to empower the company SCM suite with innovative rich prescriptive and predictive analytics
- **Products and Services**: Vertica Analytics Platform
- **Results**:
  + Full near real-time data visibility in collaborative, multi-enterprise, supply chain ecosystem
  + Sophisticated out-of-the-box analytics with rich data model delivers competitive advantage
  + Flexible physical and virtual deployment model and pricing structure
  + Ability to develop complex predictive analytics

Case Study
Analytics and Big Data

“Predictive analytics are immensely helpful to our customers and will significantly improve their time-to-decision, which will in turn lead to a shorter supply chain and cost savings.”

GIANLUCA GIACCARDI
Chief Product Officer
TESISQUARE
all times. The data platform we chose initially did not work well for us in the long-term. Their pricing model was restrictive, scalability was limited, and we felt the solution did not integrate well with other BI technologies in the collaborative supply chain ecosystem we work with. We looked for a solution that could take our Control Tower capabilities to the next level, including machine learning and artificial intelligence at scale to predict performance and issues across multi-enterprise environments. We also needed flexible solution deployment models, supporting our customer’s on-premise or cloud strategies.

**Solution**

When TESISQUARE investigated Vertica, the architecture flexibility and clear performance impressed the team. TESISQUARE wants to reduce a silo-approach within its customer base, and seamless transactional data integration, combined with sophisticated business analytics, is vital to gaining the visibility required. To ensure Control Tower adds value to TESISQUARE customer’s evolving business, the team collaborated with analysts, university professor experts in logistics and supply chain management. As a result, TESI Control Tower contains pre-configured reports, indicating the best process and service level metrics. This ensures customers are up and running as fast as possible in today’s rapidly changing supply chain environment. Customers can add to this functionality by defining their own preferred KPIs and metrics within an easy-to-use interface.

### TESI CONTROL TOWER

#### INBOUND

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<thead>
<tr>
<th>TESI SCM</th>
<th>EXECUTION</th>
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<td>Bid Mgmt.</td>
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<td>Contract Mgmt.</td>
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<td>Catalogue</td>
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<td>Price List Mgmt.</td>
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#### OUTBOUND

<table>
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<tr>
<th>TESI TMS</th>
<th>EXECUTION</th>
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<tr>
<td>TMS</td>
<td>Carrier Portal</td>
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<td>Planning</td>
<td>Track and Trace visibility</td>
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<td>Carrier</td>
<td>Price List and Rate simulation</td>
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<td>Route Optimization</td>
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<td>Optimal Carrier</td>
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<td>Loading/ Unloading booking</td>
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#### FRAMEWORK

- **INTEGRATION BROKERAGE**
  - Web EDI
  - SAP X-Plug
  - XML
  - Web Service
  - Private Flow
  - Mobile App
  - Peppol
  - eInvoice

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**SUPPLY CHAIN FINANCE**

**GOVERNANCE, RISK, AND COMPLIANCE**

**DIGITAL TRANSFORMATION**
Giaccardi on why Vertica is a good fit: “We serve customers of many sizes, processing different data volumes. Vertica’s capacity-based pricing model works very well for us, and Vertica’s open ecosystem and its roots as a native analytics database ensure TESI Control Tower can truly add value to our customers.”

Customers using the Vertica-powered Control Tower module report faster performance and time savings; vital elements in the success of a logistics supply chain. Near real-time visibility of their KPIs in an easy-to-use dashboard supports faster, data-driven, business decision-making. They can anticipate supply, shipment, or replenishment issues, and plan accordingly to minimize any impact.

With Vertica at its heart, TESI Control Tower goes beyond just providing visibility into supply chain data, as Giaccardi comments: “Vertica helps us provide self-service analytics with user-defined KPIs, and proactive analytics through monitoring supply chain workflows and alerting customers when a discrepancy occurs, or activating pre-defined processes to rectify the situation. With all relevant transactional and third-party data shared within the platform, we provide a proactive solution to shorten the supply chain and save our customers money.”

Pragmatism is TESISQUARE’s key driver to approach cutting-edge technologies and challenges. As a result of digital transformation initiatives, customer’s expectations grow continuously. However, best practices still need to be defined, and the main issue is transforming ideas into projects. In this demanding environment, TESISQUARE introduces practical solutions, working directly with customers who have a vested interest in these issues.

TESI Control Tower feeds many data sources into Vertica and integrates with other technologies such as Pentaho, Spark, Hadoop, and Kafka to provide collaborative end-to-end visibility of customer’s supply chain processes.

Results
The combination of over 20 years’ experience in the complex logistics and supply chain industry, and the right technology choices has seen TESISQUARE expanding internationally with double-digit growth in the last three years and an increasingly strong footprint in Spain, France, The Netherlands, and Germany.

Giaccardi: “We have big plans for TESI Control Tower to sustain our growth. Our roadmap includes new features, such as ‘what-if’ scenarios for our customers to support their strategic planning. We are testing Vertica’s machine learning algorithms to leverage past information and anticipate future events. We also aim to integrate external ecosystems such as weather, traffic, or political unrest reports, to enrich our customer’s data and give them advance notice of any impact they may experience, so that they can prepare and plan accordingly. Predictive analytics are immensely helpful to our customers and will significantly improve their time-to-decision, which will in turn lead to a shorter supply chain and cost savings.”