06 SAAS PLATFORM · WEB & DATA AUTOMOTIVE RETAIL

Multi-Dealership Performance Intelligence Platform

Multi-rooftop dealership groups run on performance data — but that data arrives fragmented across survey exports, DMS reports, and hand-assembled spreadsheets. Algebrix's founding team designed, built, and operated a white-labeled, SSO-enabled performance intelligence SaaS with an AI analytics engine, turning customer survey data and social platform feedback into real-time dashboards, store-level reports, and automated dealership rankings.

Note on attribution: This platform was architected, built, and operated by Algebrix's founding team, whose automotive SaaS experience predates the agency. It is presented as evidence of the team's capability — the same engineers who built this lead every Algebrix engagement.

CLIENT PROFILE	PROJECT TYPE	CORE STACK	DELIVERED BY
Automotive dealership groups · Multi-rooftop	**Multi-tenant SaaS Platform**	**Angular · Node.js · .NET · AWS**	**Algebrix Founding Team**

THE CHALLENGE

Multi-rooftop dealership groups depend on performance data — customer satisfaction scores, sales metrics, service-lane feedback — but it typically arrives fragmented: survey exports in one system, DMS reports in another, and cross-store comparisons assembled by hand in spreadsheets. The platform set out to eliminate five specific consequences:

- **Late signals.** By the time a store's declining satisfaction trend surfaced in a monthly spreadsheet, the damage was weeks old.
- **No apples-to-apples comparison.** Each store reported slightly differently, making group-level benchmarking unreliable.
- **Management overhead.** Regional managers and group principals spent hours per week assembling reports instead of acting on them.
- **Accountability gaps.** Without store-level scorecards tied to consistent data, performance conversations ran on anecdotes.
- **A social blind spot.** Customers reviewed dealerships on social platforms daily, but none of that feedback reached performance reporting — management only saw what surveys captured.

The technical challenge underneath: ingest structured survey data *and* unstructured social feedback at scale, normalize it across dealerships with different structures, apply intelligent analysis and ranking on top, and serve it back as fast, role-aware, client-branded dashboards behind enterprise-grade authentication — reliably enough for daily operational use.

THE SOLUTION — WHAT WAS BUILT

1 **Automated survey-data ingestion**
Pipelines pulling customer survey responses into a central store, replacing manual exports and spreadsheet stitching.

2 **Normalization & scoring engine**
Raw responses converted into consistent, comparable performance metrics across every rooftop in a group.

3 **Real-time dashboards**
Group-level and store-level views: trends, rankings, and drill-downs from group → store → department → individual response.

4 **AI analytics engine**
An intelligence layer beyond static reporting — analyzing customer feedback from survey submissions *and* sentiment gathered from social platforms, then generating performance analyses and dealership-by-dealership rankings. It surfaces what drives each store's position: recurring complaint themes, sentiment trends, and department-level weak spots, in plain-language reports.

5 **Automated performance reports**
Scheduled, role-specific reports (principal, regional manager, store GM) generated and distributed without manual work, enriched with the AI engine's rankings and insights.

6 **Enterprise SSO & federated login**
Single sign-on with federated identity provider support, so groups plug the platform into existing identity systems (Microsoft/Google workspace logins). Staff access it with corporate credentials — no separate passwords, and offboarding is handled centrally by the client's IT.

7 **White-label custom branding per client**
Each dealership group gets its own branded experience — logo, color scheme, and branded report templates — on a fully multi-tenant architecture with isolated data, custom hierarchies, and role-based access control. To their staff, it looks and feels like the group's own internal system.

HOW IT WORKS, AT A GLANCE

Survey sources + social platform feedback → **ingestion pipelines** (Node.js services) → **processing, scoring & AI analytics engine** (.NET services) → **data layer** on AWS → branded **Angular web application** (SSO-authenticated) serving dashboards, rankings & reports → **scheduled report distribution**.

TECHNICAL HIGHLIGHTS

- **Frontend:** Angular single-page application — responsive dashboards with drill-down navigation, filtering, and export, designed for non-technical dealership managers.
- **Backend:** Node.js and .NET services separating fast API delivery from heavier data processing and scoring workloads.
- **Cloud & infrastructure:** Deployed on AWS with a multi-tenant data model, automated backups, and environment separation — built to operate as a production SaaS, not a demo.
- **Data pipeline:** Automated ingestion and validation from two directions — structured survey submissions and unstructured social feedback — with error handling and reprocessing built in.
- **AI analytics layer:** Processes combined survey and social feedback to produce sentiment analysis, theme detection, performance scoring, and automated dealership rankings — turning two very different data types into one comparable performance picture.
- **Identity & access:** Enterprise-grade authentication with SSO and federated login, layered over role-based access control mapped to real dealership hierarchies (group → region → store → department).
- **Theming engine:** Per-tenant custom branding — logos, palettes, and report templates configured per group — delivered from a single codebase, so every client gets a branded product without forked code.

THE RESULTS

30–40
Rooftops onboarded across multiple major franchise dealership groups

Monthly → Same-day
Reporting cycle — retrospective reviews became operational signal

AI-Ranked
Store-by-store rankings generated automatically from survey + social data

- ✓ **Deployed for major franchise dealership groups.** The platform ran in production for multi-rooftop groups representing leading global automotive brands — real operational use, not a pilot.
- ✓ **Manual report assembly eliminated.** Regional managers and group principals stopped building spreadsheets and started acting on data that arrived ready.
- ✓ **Objective dealership rankings, updated automatically.** The AI engine's store-by-store rankings, built from combined survey and social feedback, became the shared scoreboard for group-level performance reviews.
- ✓ **Social feedback brought into the picture.** Customer sentiment from social platforms, previously invisible to management, now analyzed alongside survey data in one performance view.

- ✓ **Zero-friction adoption for enterprise clients.** SSO/federated login meant staff onboarded with existing corporate credentials, and per-client branding made the platform feel like each group's own internal tool.
- ✓ **Consistent store benchmarking** across the entire group for the first time — performance conversations now run on shared data instead of competing spreadsheets.

TECHNOLOGIES USED

Angular · Node.js · .NET · AWS · Multi-tenant Architecture · SSO / Federated Login · Role-Based Access Control · AI Sentiment Analysis · Data Ingestion Pipelines · White-Label Theming Engine

Why this matters for your project

1. **We build production systems, not prototypes.** This is a live, operating SaaS with real users and real data — built and maintained by the same team that will build your platform.
2. **We understand data-heavy web platforms end to end** — ingestion, processing, AI-driven analytics, multi-tenant architecture, dashboards, and reporting — on a modern stack.
3. **We build enterprise-ready, not just functional.** SSO and federated login, white-label multi-client branding, and role-based access mapped to real organizational hierarchies — the features that make corporate IT departments say yes.
4. **We know automotive.** Dealership hierarchies, survey/CSI dynamics, social reputation, and multi-rooftop operations aren't abstractions to us; we've shipped software into that world.

TALK TO THE TEAM THAT BUILT IT

Let's solve your next technology challenge.

If your business runs on data you can't see clearly — whether you're in automotive or any operationally complex industry — this is the class of problem we solve. Every engagement starts with a 30-minute discovery call, no obligation.

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BOOK A DISCOVERY CALL →

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This platform was architected, built, and operated by Algebrix's founding team. Client names and identifying details are not disclosed.