



How Papa Johns Turned Fragmented Franchise Analytics Into a Single Source of Truth

Why Leadership Lost Confidence in the Numbers

For a franchise business operating thousands of locations, the last sentence you want to hear in a leadership meeting is: “That’s not the number I have.”

Papa Johns knew that problem well.

As the company modernized its data infrastructure, it was running two parallel analytics environments that couldn’t be reconciled. The old system Papa Johns had relied on for years had outdated metric definitions sat alongside a new [Google BigQuery warehouse](#) that reflected how Papa Johns actually ran the business today. [Tableau](#) served as the visualization layer. Neither environment talked to the other.

Leadership routinely received conflicting numbers from the same data because of semantic drift: the gradual inconsistency of meaning across AI systems, analytics, and enterprise workflows over time. At Papa Johns, [semantic drift](#) damaged trust in the numbers and delayed critical decisions.



“Papa Johns leadership continually got frustrated because they never knew what the right answer was. Everybody came with a different opinion on the same ask.”



Brian Jones

Senior Director of Data Services at Papa Johns International

Industry

Quick Service Restaurant (QSR)

Use case

Legacy OLAP Migration, Unified Business Metrics, Governed Self-Service Analytics, Foundation for Agentic AI

Key Outcomes

Metric consistency across every tool and user; sub-3-second query performance replacing 30–45 second load times; enterprise-wide adoption across every business function; reduced administrative burden; foundation for AtScale MCP Server-powered AI

Environment

Excel, Tableau, Google BigQuery, AtScale Semantic Layer



The Operational Price of Multiple Sources of Truth

The metric inconsistency impacted five key dimensions of the business.

- 1. Performance that forced trade-offs.** Tableau relied on data extracts refreshed every morning. Those extracts grew unwieldy because Tableau was carrying data and logic it wasn't designed to hold at scale, with too many years of history, attributes, and complex calculations embedded directly in each dataset. To keep load times acceptable, teams were forced to trim data: removing years of history and cutting attributes just to keep refreshes finishing on time. Dashboards that still took 30 to 45 seconds to load drove users back to legacy tools or out of the analytics workflow entirely.
- 2. Finance users locked out of the tool they needed.** Franchise operators are finance users who use Excel. Getting data from Tableau into Excel took too many steps. The analytics environment wasn't meeting users where they worked.
- 3. Metrics defined in the wrong place.** Metric logic was embedded inside individual Tableau data sets. When logic needed to change, every dashboard had to be updated manually. Miss one, and drift began.
- 4. A legacy environment that required daily hand-holding.** The Essbase environment required manual intervention every morning just to stay operational. If an admin didn't log in and verify the cubes, support tickets followed. The team's energy was consumed by reactive maintenance rather than building analytical value.
- 5. Data sitting unused in the warehouse.** The data engineering team had built something strong in BigQuery, but performance constraints meant most of that data never reached analytics users

How Papa Johns Defined the Problem Before Choosing a Solution

Before evaluating solutions, the Papa Johns data team outlined six non-negotiable requirements any platform would have to meet in full. This decision discipline kept the evaluation grounded in business outcomes rather than feature comparisons.

The six pillars:

- 1. Performance** — Queries must respond in under 3 seconds
- 2. Pivot table look and feel** — Finance users need tabular, Excel-native interaction
- 3. True Excel integration** — A live native connection, not an export
- 4. Consistency** — Identical results regardless of tool or user
- 5. Resiliency** — No daily maintenance; infrastructure that scales
- 5. Expanded data access** — Full use of BigQuery's depth without performance compromise



What the Fix Actually Looked Like

Here's how AtScale delivered on Papa Johns' requirements:

On performance: AtScale's intelligent aggregation engine learns actual user query patterns and builds aggregates accordingly. Combined with in memory caching, this delivered the sub-3-second target without requiring teams to pre-build and maintain aggregates manually. (This case study shows how AtScale's intelligent aggregation drove a [21,000x efficiency gain](#) at a Tier 1 bank.)

On Excel integration: AtScale presents itself to [Microsoft Excel](#) as Microsoft Analysis Services, which is a native connection, not an export workflow. Franchise users could start their data workflow in Excel with no extra steps.

On consistency: Metric definitions live in the [AtScale semantic layer](#). Whether a user opens Excel or Tableau, they query the same logic. Drift becomes harder when there is only one place where the definition lives.

On resiliency: Retiring Essbase eliminated the daily cube maintenance cycle. With the refresh monitoring burden removed, admins could move from support into more value-added development and analysis roles.

On data access: With AtScale handling aggregation and caching, the full richness of BigQuery became available. Data that had never reached users because of performance trade-offs was now accessible to anyone in the organization.

Data access controls were consolidated into the AtScale semantic layer, where it could be enforced once and applied everywhere.

Best Practices to Scale Adoption Across Thousands of Users

Papa Johns recognized early that the technical implementation was one half of the equation. The data team ran a parallel change management program built around several principles:

Franchise users and operators as contributors. Key franchise operators and corporate power users were brought into the project as contributors. They helped define metric logic and shaped what data attributes should be included. When the solution launched, those users championed it to their peers as their platform, not an IT mandate.

Starter kits to reduce the blank-page problem. The team built a SharePoint site accessible to anyone with an AtScale login. Inside, they used a service account with limited access to bring in a hierarchy set that masked identifying store numbers, protecting sensitive data while keeping templates broadly usable. Pre-built Excel workbooks covering the top franchise and corporate use cases were available to download directly. Users signed in and the data refreshed automatically based on their credentials.

Scheduled office hours. Structured availability windows let users bring questions in real time. Support friction dropped and adoption accelerated.

What Changed When the Semantic Layer Took Over

When Papa Johns retired Essbase and moved metric logic into AtScale, performance problems were resolved and maintenance work largely disappeared. Adoption exceeded expectations, with one of the company's top users telling Brian's team:

"AtScale has been an absolute game changer for Papa Johns."



"The adoption of our AtScale implementation has been absolutely phenomenal."



Brian Jones

Senior Director of Data Services
at Papa Johns International

Five outcomes demonstrate the data transformation:

Performance delivered. Dashboards that required 30 to 45 seconds now return results within the 3-second target. The performance trade-offs that had forced teams to limit data access are gone.

One answer, every tool, every user. Net sales, comps, delivery times, margin, customer satisfaction, and staffing KPIs were all defined once, flowing through every interface. A franchise owner opening an Excel pivot table and a corporate analyst running a Tableau dashboard see the same number.

Data that was locked in the warehouse is now in users' hands.

Customer segmentation analytics is available in both Tableau and Excel. Product mix and promotional redemption can be analyzed down to individual item and deal level. AtScale now powers analytics across every major business function:

- Leadership receives daily email digests with day-to-date, week-to-date, period-to-date, quarter-to-date, and year-to-date metrics
- Franchise operators start each morning with prior-day performance data
- Operations teams pull historical comparisons to plan staffing for Super Bowl Sunday, New Year's Eve, and Halloween
- HR tracks employee retention at the store level
- Finance, supply chain, marketing, and restaurant development all have data in AtScale.

The data engineering team's work is finally reaching the people it was built for.

Adoption that exceeded every forecast. BigQuery consumption costs increased because far more users were accessing data through AtScale than the team had anticipated. The daily leadership email became so essential that when a delay occurred due to an unrelated email server issue, a VP on the commercial team immediately asked when it would arrive. When users start their requirements conversations by saying "it must be in AtScale," Jones noted, "that is a testimony to the tool, because most users don't care about the platform. They just want their question answered."

Administrative burden eliminated. Retiring Essbase ended the daily cube monitoring cycle. Eliminating Tableau data extracts removed a constant source of refresh-related tickets. Admin team members who had spent their mornings on reactive maintenance shifted into development and analysis roles.





Looking Ahead: Preparing Trusted Data for AI

Papa Johns is already planning the next phase with the [semantic layer](#) at the foundation.

The team is upgrading to a more resilient cloud infrastructure, improving scalability and unlocking native connections to Google Sheets alongside Excel.

Most significantly, the upgrade enables AI agents to query governed data directly. Papa Johns has already begun building chatbot on that capability.

“Whether it be that chatbot using AtScale data or a traditional Tableau desktop or some analyst looking at an Excel spreadsheet,” Jones explained, “they’re going to get that exact same answer every single time.”

The same governed business logic that eliminated metric drift across human analysts will now ground AI agents in the same trusted context. The semantic layer is the foundation on which every query — human or machine — gets answered the same way.

The Outcome: One Answer, Every Tool, Every User

Papa Johns came in with six non-negotiables. AtScale delivered against all six.

A franchise business with thousands of locations, multiple tools, and users ranging from corporate finance analysts to individual operators now operates from a single source of truth. Leadership gets consistent numbers. Franchise operators start their day with data they trust. Analysts have access to data that was previously locked behind performance constraints.

Now the foundation is in place for AI to inherit that same trusted context.

AtScale enables smarter data-driven decisions by delivering a Universal Semantic Layer that unifies business logic, accelerates performance, and provides consistent metrics across BI tools and AI applications. As the pioneer of modern semantic layer technology, AtScale has helped leading enterprises turn their cloud data platforms into governed, scalable, analytics-ready environments for more than a decade.

Recognized as a Leader and Fast Mover in GigaOm’s 2025 Semantic Layer Radar, AtScale serves more global Fortune 500 enterprises in production than any other semantic layer provider. For more information, visit www.atscale.com.