CASE STUDIES

Making Mass Transit More Successful

GMV is the leader in building dispatch and reporting solutions for transit agencies — kind of like air traffic control for buses. It recently launched tools, powered by GoodData, to further transform the transit landscape.

The product, Sync Insights, takes the mountains of information captured by GMV's system and makes it immediately accessible and explorable, allowing transit managers to track changes in key performance indicators like never before.

CUSTOMER SINCE
2020

USE CASE
Data analytics to enhance performance, system efficiency

SOLUTION
Powered by GoodData

Given GMV's big footprint — including 20 million data points generated daily by 2,500 buses across 75 American cities — that's a lot of insight into transit systems. With Sync Insights powered by GoodData, GMV provides dashboards built to quickly display information regarding:

- Performance: showing where buses are on time, early, late, performing by route, and whether service is frequent enough or too much
- Ridership: enabling transit authorities to explore patterns of boardings throughout geography and time
- Team: monitoring and comparing driver performance on similar routes

Every report on the Sync Insights' dashboards can be drilled into for further detail, filtered to specific information or time periods, and exported to PDF or Excel formats for further analysis.

“What’s really exciting about this data is that it enables you to run your transit system better,” says Steve White, GMV’s Chief Product Officer. “It’s not about looking at cool charts. The faster you get to the data you need, the faster you get the insight out of the data to make better decisions.”

Transit Under Pressure

Mass transit is coming under pressure from rideshare services, such as Uber and Lyft, and micromobility via scooters and bikes.

GMV ITS North America, formerly known as Syncromatics, was founded in 2006. It was the first cloud-based provider of transit-tracking tools, pulling data from GPS trackers on buses. The technology was “wildly impressive,” at the time, White says, and enabled transit authorities to know whether buses were on time or late, how many passengers got on board, as well as where and when they boarded and departed. But as GMV grew, along with demands on transit agencies, it innovated to enable further exploring of data and, in turn, enable better transit management.

“With GoodData, we’re contributing to the ability for transit agencies to be more efficient.”


Steve White

Steve White
Chief Product Officer at GMV

In March 2020, GMV launched Sync Insights to allow customers to better explore and analyze data. Rather than simply receiving reports of what happened, transit authorities can now more easily discover insights in data that they weren’t specifically looking for.

For instance, some transit authorities have already benefited from Sync Insights by more accurately gathering and analyzing performance of operating contractors, i.e., companies that run the bus service. If they don't meet performance goals, transit authorities can collect damages. In the past, some transit agencies simply sent people to randomly ride buses and tabulate performance. Now, that information is automatically collected, gathered, and tabulated.

Additionally, transit officials can use Sync Insights to filter for certain metrics — on-time performance, ridership, early departures — and then deliver that information on a regular basis to those who need it so they don't have to dig for the information themselves.

"This way, officials will spend less time wrangling with data and software, and have more time to analyze data and respond," White says. All of the same data existed before, but people "had to dig for it," and maybe "find someone to help them understand it."

Better Data for Better Service

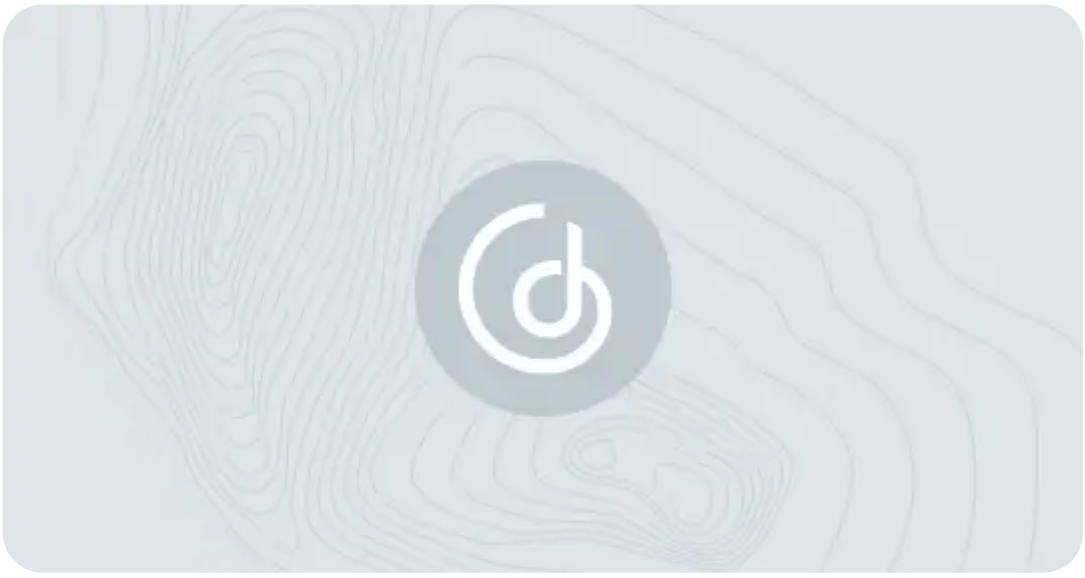
GMV's target market is mid-sized cities that run between 20 and 300 buses. That is a huge market given that 65% of the nation's mass transit authorities are about that size.

Most of GMV's customers are government transit authorities. They get local and federal funding, largely based on ridership. Having accurate information is important to ascertain funding, White says. Also, transit agencies need data to assess optimal service levels that enhance the experience so that more people choose mass transit.

"You can't really improve your on-time performance if you don't know what it is," White says. Otherwise, the data might inform a shifting of resources to routes that really work from those that don't.

"For transit planners, it gets very political about where to send a bus route, whether they spread out over a large physical area so everybody has a bus that comes by, or whether they concentrate resources where there's more people. With good data (relevant, timely), authorities can make more informed decisions," White says.

For instance, one of GMV's customers had a grant to pay for evening bus service. When the grant ended, the authority faced a decision to pay for the service itself or let it expire. Local officials advocated for the service to appease constituents. But the data showed ridership that was too low to justify the service. Ridership data also helps to inform decisions about where to construct shelters at bus stops.



Choosing GoodData

GMV was drawn to GoodData because of the strength of its embedded analytics, White says, and also because it enabled GMV to still control the user experience and the user interface.

Typically, government software lacks the ease of use and feel that people have come to expect from technology, White says. "Our users, frankly, don't even know they're using GoodData. It was important to us that customers use our software design, which we consider a key differentiator because it enables an enjoyable and positive user experience."

Results with GoodData:

By more accurately gathering and analyzing data, transit agencies can more optimally deploy resources and hold operating contractors more accountable for good service.

In the Future

GMV is already planning enhancements to Sync Insights. In the future, it'll give transit authorities the power to develop their own reports and go beyond standard dashboards.

"We're really excited about this because it shows that this is a platform that will enable us to continue to provide new value. It's not something that's done today and set in stone."

Steve White
GMV

Also, GMV expects to increase capabilities for transit authorities to more robustly track data in real time and be able to more quickly respond to situations, such as adding buses if routes are especially heavy or if buses are running too far apart.

"We'll have data embedded throughout the website in areas that don't look like the reporting section or the data section," White says.

The improvements, GMV says, are all intended to make mass transit more efficient, more helpful to the communities and citizens it serves, and more cost-effective.

"This is part of a trend. We're contributing to the ability for transit agencies to be more efficient," White says.