



MANHATTAN ASSOCIATES TMS UPDATE

by Mike Mulqueen



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SUMMARY

- Manhattan Associates (MANH) has re-written their Transportation Management System replacing the feature rich, but aging, Transportation Management Lifecycle (TLM) solution.
- The new solution, now called Manhattan Active Transportation Management (MATM), uses a componentized, microservices (MS) architecture, following in the path of Manhattan's Active Omni and Active Warehouse Management solutions.
- This architecture has significant advantages over monolithic applications that are still prevalent in the TMS market
- We are impressed by the clean look and feel of the application as well as significant feature function improvements.
- While we applaud MANH for their significant investment in MATM, it does come with risks and costs for current Manhattan TLM users, as well as those evaluating the Manhattan TMS Platform.



OVERVIEW

Manhattan Associates entered the TMS vendor space in 2003 through the acquisition of Logistics.com. That acquisition seemingly provided MANH the opportunity to build and market a differentiating solution that would unlock value through the tight coupling of distribution and transportation processes and systems.

That vision was never truly realized due to an array of technical issues that inhibited plug and play system integrations.

While the integrated “Platform” never truly panned out, over the past 18 years, MANH has built a sophisticated, feature rich solution that is used by many large shippers with complex, multi-modal requirements. However, TLM’s technical foundation is now 20 years old.

Additionally, features and capabilities added during this time have made the application unwieldy, unintuitive, and inherently fragile. A re-writing of the application was long overdue, and we applaud MANH for making this significant investment.

We believe the architectural changes by themselves are compelling however, MANH also used this opportunity to fix some significant limitations in the system.

Here is our take on the benefits of the new solution, as well as some areas of concern.



➤ MATM BENEFITS

We view the microservices architecture as a game-changer that offers significant advantages over monolithic applications. These advantages include:

- **Focused Scalability** - As each microservice is an independent, self-contained application, an MS enables dynamic scalability for the process that is being taxed versus the entire monolith. This will dramatically reduce cloud resource needs and costs.
- **Upgrade Complexity** - In theory, microservices can be released that only touch on specific process areas, thereby enabling shippers to minimize regression testing.
- **Faster Release Cadences** - MATM has announced that they will be releasing new capabilities quarterly vs their current annual release cycle. The release cycle, which could be even faster, is throttled not by technology, but by customer preference.
- **Risk Reduction** - As each microservice is a self-contained application that communicates through REST APIs, a bug will be contained within an individual sub-process area.
- **Application Interoperability** - A specified bundle of microservices can be marketed as a TMS, but they can also be used individually or as a defined sub-set to support specific client requirements. For instance, the Active WM application can use one or more MATM microservices to support transport-centric processes within the DC, as the MAWM and MATM microservices are deployed together.
- **Upgradeable Customizations** - MANH has built in web hooks that enable clients to build and customize extensions within a microservice. Historically, any modifications would have needed to be built and supported by MANH, which was costly and often inhibited upgrades.



➤ MATM BENEFITS

- MANH has re-written and consolidated the optimization engines. In previous versions, shippers were required to predefine which optimization engine to use based on their network type, which made fundamental concepts such as when to use a private/dedicated fleet vs. a contract carrier decision impossible.

The new engine supports standard and high-density fleet operations as well as contract carriers within a single optimization pass.

Additionally, the engine incorporates the carrier selection process within the optimization run versus as a secondary, post-optimization process.

The engine has also been built to take advantage of the microservice architecture, providing significant increases in run-time performance and scalability.

- The MATM user interface appears much cleaner and more intuitive than its predecessor application.



➤ MATM CAUTIONS

While there are significant benefits with MATM, there are negative aspects that need to be weighed when considering moving to the MATM platform.

- Existing customers will need to re-implement their TMS. There is no “Easy” button to automatically migrate their data and processes to the new platform. Moving from TLM to MATM is essentially a new implementation.
- The current iteration of MATM is not functionally equivalent with TLM. Certain capabilities have not been ported over yet. Prior to migration, clients should work with MANH to ensure that the capabilities that they are currently using are supported in the new system.
- There are no clients live on MATM, although there are a few that are in the process of implementing the solution. As this is essentially a new release, we anticipate that there will be a relatively high number of defects, as one would expect with a 1.0 version.
- MANH has no references that can speak to the efficacy of the MATM platform. References will be using a fundamentally different application so their point of view must be viewed through that prism.



MATM CAUTIONS

- Like TLM, MATM is still limited in various aspects of parcel management, which we see being a growing need and expectation by shippers looking to acquire TMS technology.
- MANH's chief scientist has recently left the organization. This may slow the organization's ability to address optimization and machine learning initiatives that are critical to transportation processes.



SUMMARY

MATM improves on a variety of functional and technical limitations seen in the legacy MANH TMS.

The multi-tenant, microservices technology is the most compelling aspect of the new release as it enables customized logic and workflows.

MATM also addresses some long-standing functional gaps while improving application usability.

However, as shippers look to move to MATM, they must not look at this as a routine upgrade. It is a completely new system that has strengths and weaknesses when compared against its predecessor.

- Prior to implementing MATM, shippers should take the time to perform a holistic, non-biased assessment on their freight and distribution operations identifying what is working and what is not. The assessment should not focus solely on the current state of the business, but be done cognizant of how the system must support long-term corporate growth initiatives (e.g. new channels, new products, new geographies).
- MATM is not functionally equivalent to TLM. It is better in some areas and lacking in others. Take time to understand MATM's capabilities and the product roadmap to ensure it meets your company's needs.



➤ SUMMARY

- Even areas that are functionally equivalent have undergone complete re-writes, such as the replacement of the Cons 4, HDRP and the Fleet Planning Engines. This poses a risk, especially for those shippers that have complex optimization problems (e.g. Fleet optimization, Cross-dock optimization).
- Once you decide to move to MATM, use this as an opportunity to re-design your processes, integrations and workflows. A one-for-one implementation is a lost opportunity.

If you have questions or would like to discuss the impact of MATM to your business and how you should go about assessing and implementing the new solution, please contact me directly at mike.mulqueen@jbf-consulting.com or visit our web site, at www.jbf-consulting.com.



➤ ABOUT THE AUTHOR

[Mike Mulqueen](#) is a leading expert in logistics solutions with over 30 years managing, designing, and implementing freight transport technology.

Mike's functional expertise is in Multi-modal Transportation Management, Supply Chain Visibility, and Transportation Modeling.

Mike earned his master's degree in engineering and logistics from MIT and BS in business and marketing from University of Maryland.

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Our leadership team has over 70 years of logistics and TMS implementation experience.

Because we operate in a niche — we're not all things to all people — our team members have a very specialized skill set: logistics operations experience + transportation technology + communication and problem-solving skills + a bunch of other cool stuff.



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