



**intelliTide**

# **WHAT DOES THE E-SYNDICATION MDM ARCHITECTURE PATTERN MEAN FOR YOUR BUSINESS?**

(We know, we invented it!)

## **AND WHAT TO LOOK FOR IN AN MDM SOLUTION**

There is a new pattern (or implementation style) recently emerging as Master Data Management (MDM) experiences a transformational change. This is in addition to the four implementation styles prevalent in the industry – registry, consolidation, coexistence and centralized.



US e-commerce sales as a percentage of total retail spend rose from 6.4% in 2010 to 16% in 2019 and is skyrocketing in 2020.

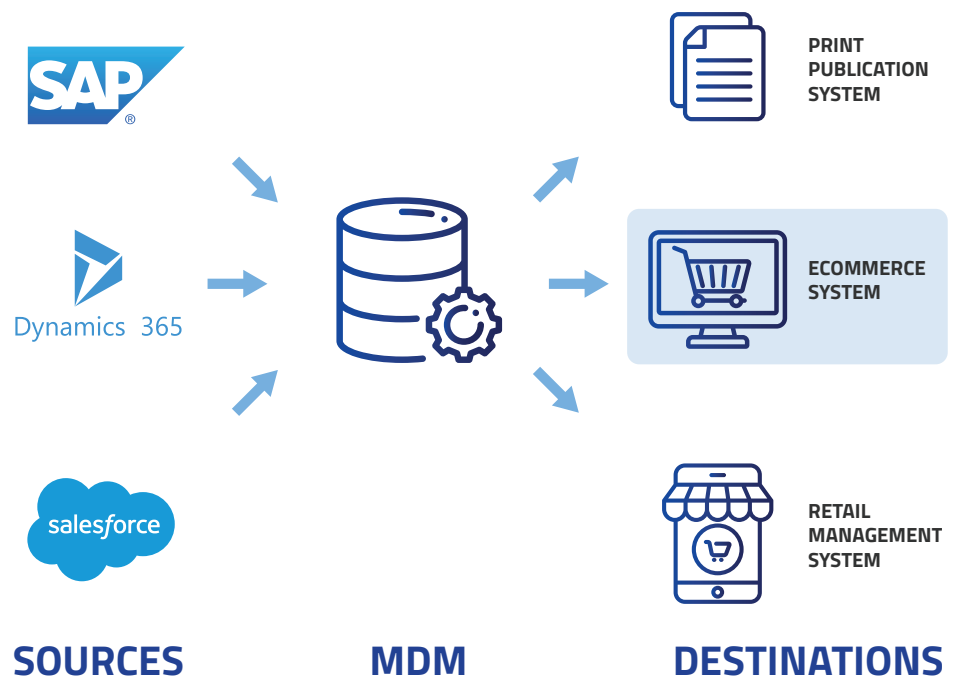
## THE MASTER DATA MANAGEMENT EVOLUTION

Traditionally, enterprises adopted MDM to create a single-source warehouse for master data to reduce costs, manage risk and improve productivity. They then syndicated MDM data to multiple channels, including e-commerce.

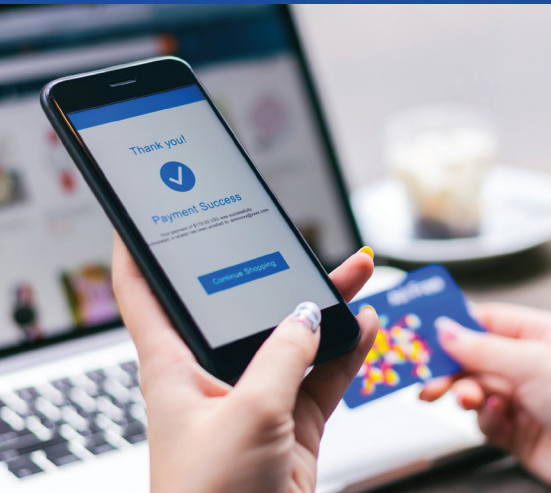
## THE B2C E-COMMERCE TRANSFORMATION

E-commerce has become the most important outbound channel.

While it has steadily grown as a share of total US sales, COVID-19 is putting this trend in hyperdrive.



Meanwhile, e-commerce syndication of master data has gained steady prominence. The strategic shift towards multichannel e-commerce demonstrates companies are not just selling on their own portals but also on marketplaces such as Amazon, Walmart and Shopify.



MDM drives  
revenue  
on every  
e-commerce  
channel.

## HOW MDM REVOLUTION ENABLES ECOMMERCE

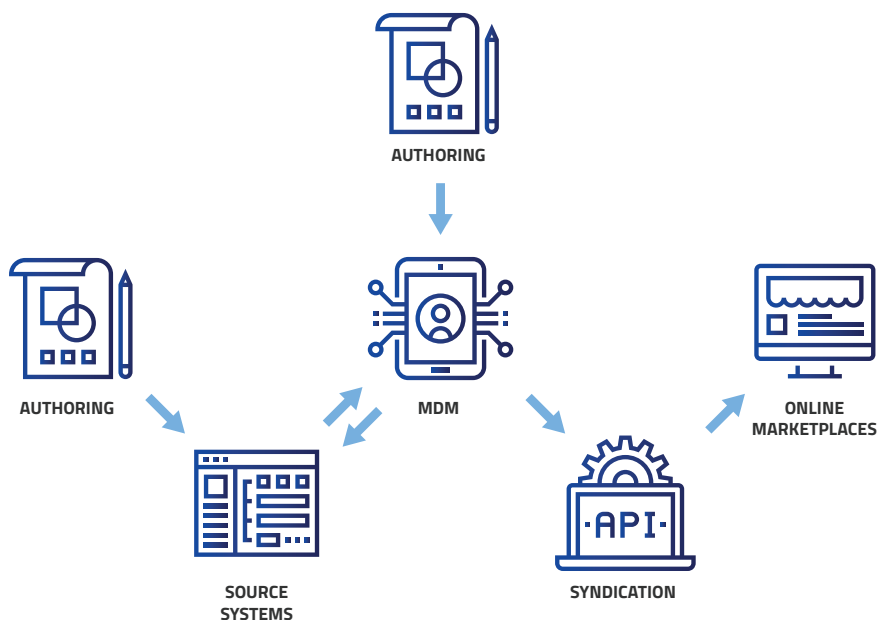
No longer is MDM simply a means of internal process improvement – it's now a major powerhouse to drive sales and revenue.

Benefits of MDM include:

- ✓ Managing risk
- ✓ Reducing labor and other costs
- ✓ Boosting productivity
- ✓ Accelerating go-to-market
- ✓ Increasing process efficiency
- ✓ Improving decision making

## INTRODUCING THE E-SYNDICATION MDM PATTERN

Are you ready to implement MDM? Choosing what e-commerce channels you will leverage will drive how to launch your MDM solution – the e-syndication implementation pattern. The channels determine the orchestration of the rules, data model elements, governance, quality control and other aspects of MDM execution.



You can implement an MDM solution using any of the traditional architectures – registry, coexistence or centralized – and you can author master data within the source systems (registry or coexistence) or in the MDM (centralized). You'll syndicate to one or more e-commerce channels usually via an API Gateway.

Navigating these often-complicated requirements especially when looking to sell on multiple platforms is a daunting, tedious and time-consuming task.

## STEPS TO SELL ONLINE

Every e-commerce asset – platforms of pure play companies such as Amazon, eBay and Shopify or e-commerce portals of retail giants such as Kroger, Walmart and Costco – has unique merchant approval processes, integration rules and technical requirements to display and sell products.

Navigating these often-complicated requirements especially when looking to sell on multiple platforms is a daunting, tedious and time-consuming task. Once you receive approval to sell on these online marketplaces, some of the steps you need to complete to send product data include:

1. Establishing a secure connection to send data either via an API or a file
2. Mapping and transforming the item hierarchy between the MDM source and the destination e-commerce platform
3. Detailing and transforming the attributes between the MDM source and the destination e-commerce platform
4. Transforming the data to confirm to the destination schemas for items with variants
5. Accounting for the various attribution level rules and validations the platform enforces
6. Creating a callback and replay mechanism for the MDM system to receive notifications of data syndication errors and exceptions and resubmitting data after addressing the issues
7. Designing for scalability and optimal performance

While these steps are generally same across any platform, the schemas – data formats, hierarchies, attributes – and the validation rules and data type restrictions all vary from one platform to the next.

## WHY YOU NEED AN API GATEWAY

How can you deal with this complexity especially when selling to multiple channels? Vendors have built the middleware API or API gateways that manage these challenges and facilitate easy handoff of data from MDM to different channels.

The APIs or API gateways they provide support a single or limited number of interfaces that normalize the schemas and orchestrate the setup of connections and transfer of data to and from the channels. They relieve the MDM of having to deal with the challenges of managing syndication to every channel they intend to sell on. They support not just programming interfaces but also file formats – CSV, XLS, XML, etc. – depending on what the destination channel supports.



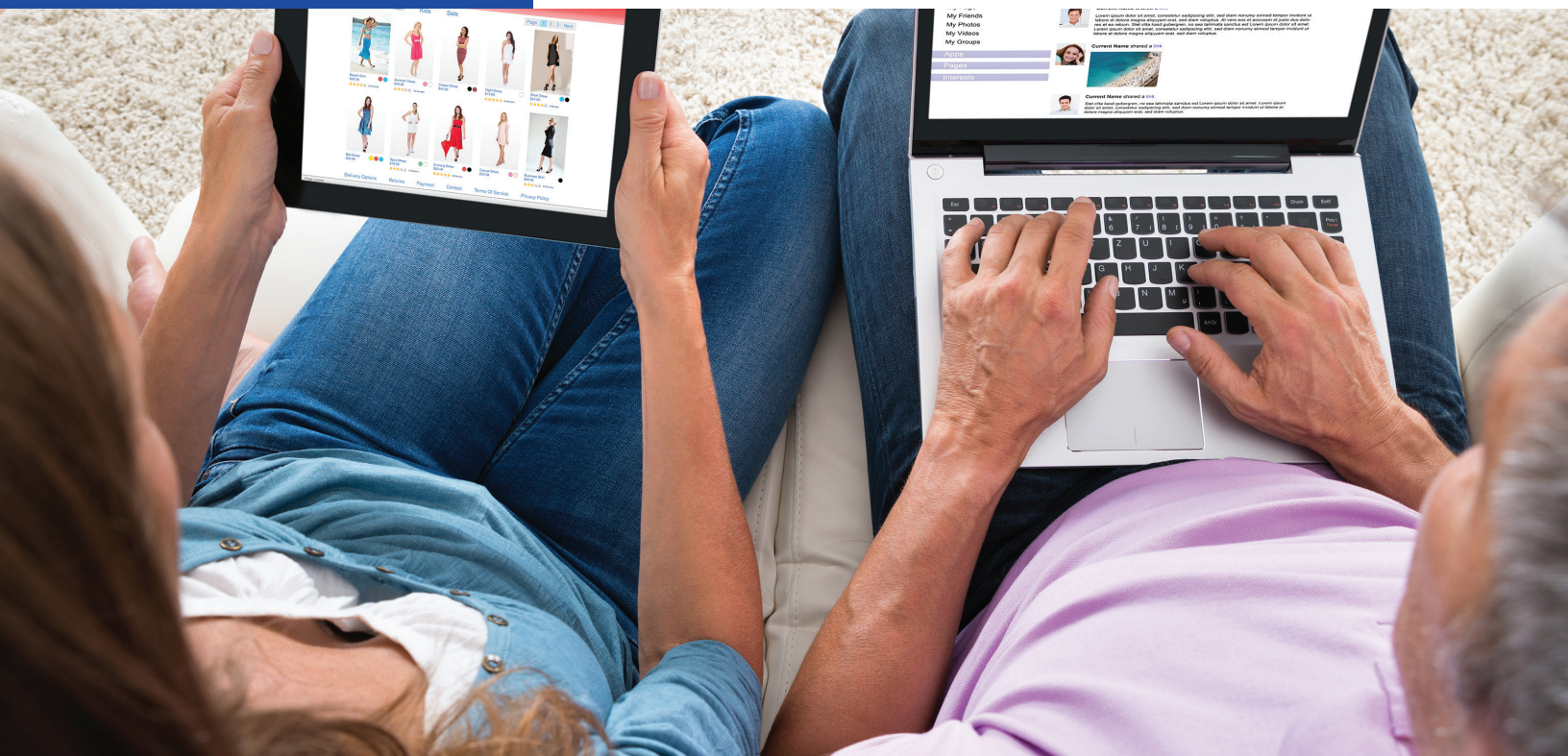
You need to know not just how your items are selling overall but how each item sells, who is buying it, and when.

## WHAT TO KNOW ABOUT THE E-SYNDICATION PATTERN

1. **Multiple online channel sales:** The e-syndication implementation style is not a useful or appropriate pattern when syndicating to one or two e-commerce channels. As the number of channels increase, the pattern gains in utility.
2. **Trade-off between data quality and speed of product introduction:** Certain companies at times need to make minor concessions on data quality to accelerate the introduction of products online. When selling on multiple e-commerce platforms, setting up the product content for each channel could be time consuming. You need to find the right balance between content richness and speed. If you're selling fast-moving products such as apparel, you need to ensure that too much focus on data quality and richness doesn't slow introduction of your merchandise.
3. **Importance of analytics:** In the e-syndication implementation, you need to know how your items are selling on each e-commerce channel carrying your wares – and not just overall sales but drill down to the level of the category and product line. You may also need to design channel based pricing by studying the sales data and customer profiles. All this implies the need for detailed analytics.

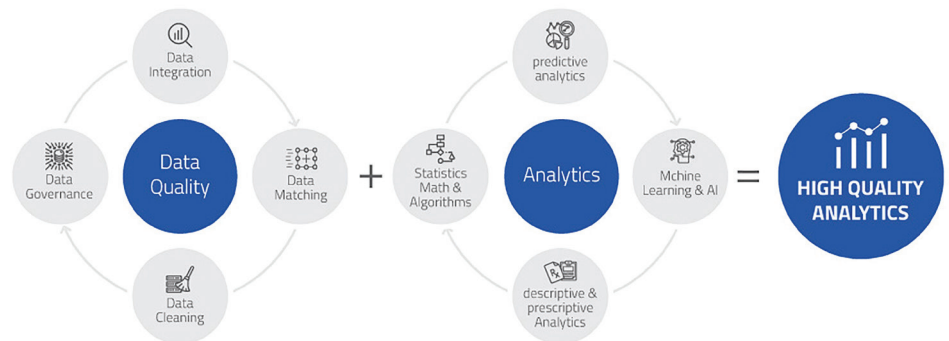
## WHAT TO LOOK FOR IN AN MDM SOLUTION

To support the e-syndication architecture, even with the use of the API/gateway to enable multichannel e-commerce syndication, MDM solutions need to evolve to support certain features for the business users.



You need  
an MDM solution  
that provides  
high quality data  
and detailed  
analytics – a  
one-stop shop  
for all your data  
processing needs.

You will need the ability to select which item to sell on which platforms and to map categories of items in MDM to the destination categories and MDM attributes to the destination attributes.



Most data science companies perform one or two of these phases, leaving you to figure out the rest. We, on the other hand, excel in executing all these steps, making us the one-stop shop for all your data-processing needs.

## Our Analytics/BI Team Answers Questions Like:

- When I market my products on different e-commerce channels, such as Walmart and Amazon, what is the **sales performance** of those products by channel by month? What's trending up and what's staying the same or moving down? Is the performance in December higher, lower or the same as it was in May? What do the trend lines look like over time?
- What is the **total revenue** of my products by channel for the year? Over 12 months, what was the gross revenue of each individual product so I know what to carry over to next year's product mix and what to discontinue or market differently?
- Which **pricing strategy**, including promotions, had the highest and lowest impact? Did the promotions increase conversions? Why or why not?
- What were **my top sellers** by channel, time of year, customer segment and price? Who bought what, on what platform, at what time of year, and which price points got the most results? Did men or women buy more? Did the season of the year affect conversions? Did the sales work better on one channel than another?
- Drilling down to individual product, how did the **product perform** by channel and region? Do people in one part of the world buy my product more than people in another? Do people buy the product more on Amazon, Etsy, Target, or another channel?

## CONCLUSION

The e-syndication architectural pattern will be as ubiquitous as any other MDM implementation style in the coming years as companies recognize they can leverage the e-commerce marketplaces as a significant line of revenue and profit.

## ABOUT THE AUTHOR

Ramesh Prabhala is the founder of IntelliTide, a data science platforms and services company that uses the power of data science, machine learning, cloud and big data to improve efficiency, productivity and financial outcomes. The company partners with EnterWorks SI.

Prior to founding IntelliTide, he worked in various technical management, engineering and consulting roles and has extensive experience in enterprise systems and data management.

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