MLS DATA EXCHANGE (MDX): Enabling Intelligent Consolidation

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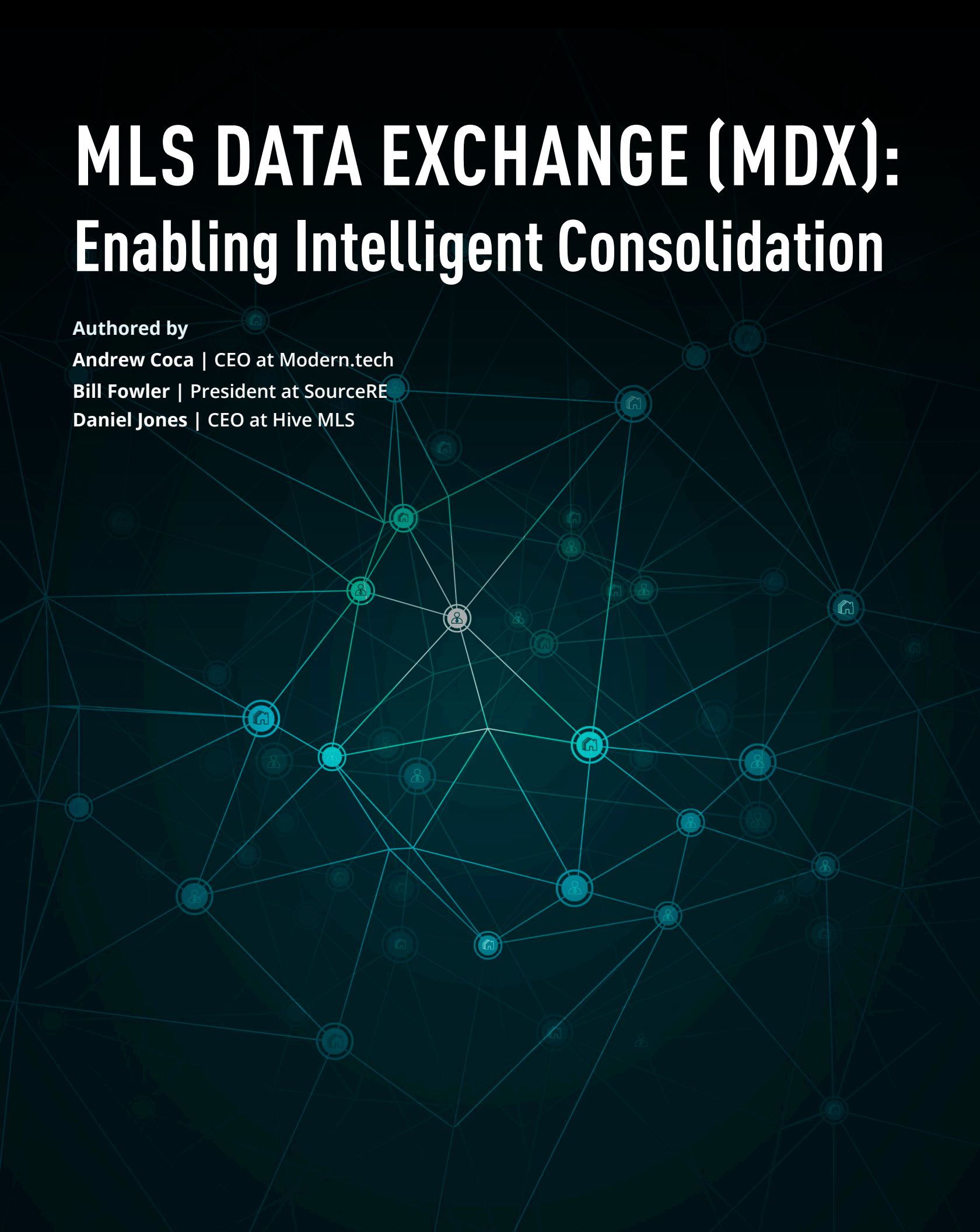


MLS Data Exchange (MDX): Enabling Intelligent Consolidation

By centralizing business rules and data dictionaries, MLSs can achieve full listing input interoperability.

Real estate data fuels decision-making for practitioners and consumers alike, delivering timely information critical to home buying and selling. Multiple Listing Service (MLS) organizations have long understood that facilitating access to this data beyond their traditional geographical boundaries enhances market efficiency and supports their members—real estate brokers and agents—in serving clients effectively.

Over time, MLSs have implemented diverse data-sharing strategies to address shifting consumer demands and market expansions propelled by quickening MLS consolidation. Yet, these initiatives stumble: disparate data dictionaries, conflicting business rules, and organizational politics obstruct progress, while technical issues and idiosyncrasies between vendor systems undermine the scalability and impact MLS executives strive to achieve.

This whitepaper introduces the MLS Data Exchange (MDX)—a unified framework designed to overcome these challenges and deliver true vendor system interoperability. Drawing on the Real Estate Standards Organization's (RESO) foundation for standardized practices and building off of the original work by Front-End-of-Choice (FEoC) pioneers, the MDX offers a transformative approach to unify operations and empower MLSs as stewards of market data. The sections that follow outline the current data-sharing landscape and introduce MDX as a strategic solution for an industry poised for change.

Data Sharing Today

Historically, MLSs operated as standalone entities, each managing its own dataset and rules within defined geographic boundaries. As time passed, changing market dynamics driven by MLS consolidations, cooperative agreements, and practitioner demands have pushed these organizations to share listings beyond their traditional borders. Today, data sharing among MLSs has evolved into a widespread practice with over 50% of MLSs participating in some form, spanning both adjacent and non-adjacent markets.[1]

Despite its prevalence, data sharing remains fraught with challenges. Each MLS partners with a vendor to provide listing input software and a database customized to that particular MLS's rules, resulting in data schemas and business rules that are unique to each MLS. Sharing data between even two MLSs requires labor-intensive mapping of fields—such as reconciling "Ask Price" in one system with "List Price" in another—and in traditional data shares, these mappings are only cosmetic. Neither participant MLS makes database-level, source-of-truth changes to these fields, which means there is no central foundation in place for future expansion of the data share. As a result, adding more partners exponentially increases the complexity, as each new participant must individually align its data schema with all other participating MLSs.

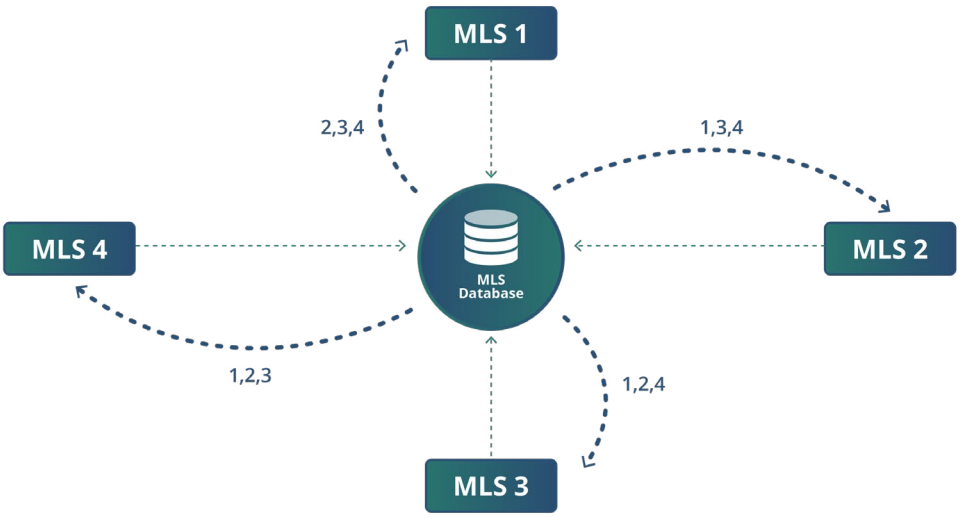
Technical issues compound the problem: listings go missing during integration, duplicates (e.g., a property listed with multiple IDs) confuse users, and inconsistent change tracking leaves systems out of sync. Operationally, broker tours across MLSs falter, uptime lags under added strain, idiosyncrasies between vendor systems result in breaking changes, and costs rise with data replication and media management.

Beyond technology, organizational dynamics add friction. MLSs and their vendors grapple with misaligned priorities while would-be MLS data share partners face political standoffs over governance. While consolidation and cooperation promise efficiency, the current patchwork of data-sharing methods fails to deliver and struggles to accommodate reasonable MLS consolidation efforts, underscoring the need for a more unified approach.

The MLS Data Exchange Model, or "MDX"

Unlike the data share, an MLS Data Exchange (MDX) unifies the data dictionaries and business rule sets of participant MLSs into one central, independent database and API that sits alongside the vendor systems. Unlike data shares' cosmetic standardization, an MDX's standardized data dictionary is the native source of truth for a market's data. This alleviates the complexity of adding new partners, as it only requires the mapping of the subject database to MDX.

Exhibit 1: The MDX Model



This diagram illustrates an MDX implementation with multiple vendor systems creating and contributing new listings to the MLS, and each receiving the full compilation back.

A data exchange's business-rule engine validates every data entry API call, ensuring consistency at the source, not as an afterthought. Through RESO-certified APIs, any MLS front-end system can fully add, edit, read, and write to this central hub, at the discretion of the MLS. In other words, one of the key features of a data exchange is full Add/Edit interoperability between vendors. Multiple vendor systems can write data into the central database, and each pull the full compilation back.

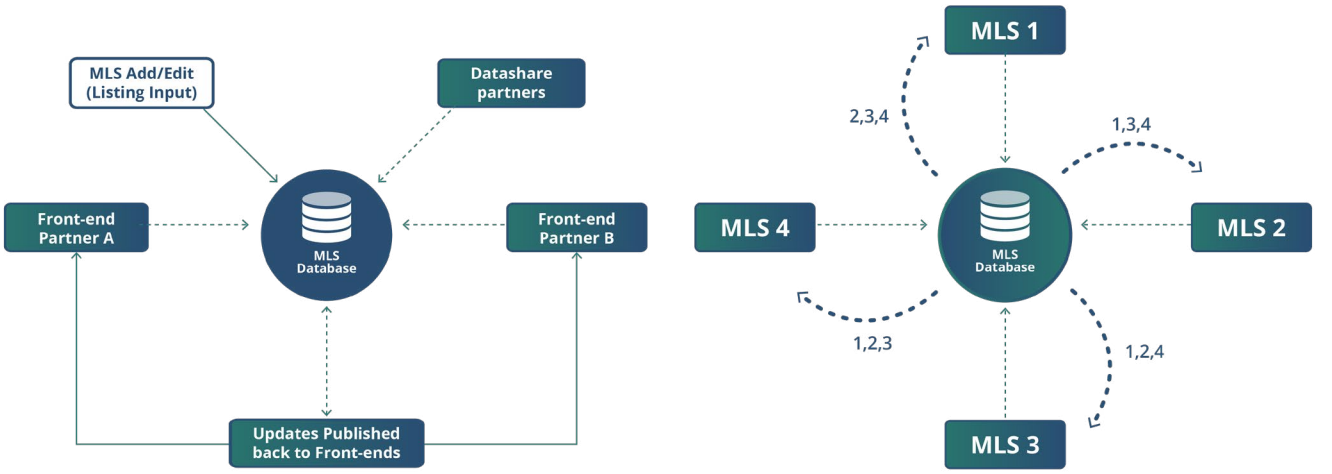
A data exchange puts the MLS in control of its data, separating its core identity as an organization from any one vendor and clarifying - especially to its members - its role as the sacred steward of the market's property data. Instead of asking a vendor for permission to change or use its data, MLSs in a data exchange dictate the nature and schedule of updates. When the MLS decides to make changes to data or rules, all vendors have equal opportunity to implement these changes by simply using the data exchange API in accordance with the wishes of the MLS.

MDX vs. Front-End of Choice (FEoC)

An MDX is synonymous with interoperability. However, the terms Front-End-of-Choice (FEoC) and interoperability are often conflated. On the surface, they share the same value proposition: brokers and agents get to pick their preferred tools to manage their listings, appeasing members in the event of MLS consolidation. However, the magic of true interoperability happens behind the scenes, and when done correctly, would never require changes in member behavior.

Unfortunately, today's FEoC implementations do not deliver true interoperability. These implementations instead centralize all listing input into one single source of entry, and limit the other front-ends to view and edit capabilities only. As a result, brokers and agents must convert to use the system the MLS has chosen for the listing input capability, and only afterward do they have a "choice" of system they'd like to use to view and edit listings.

Exhibit 2: Front-End-of-Choice vs. MLS Data Exchange



This exhibit presents a side-by-side comparison of the Front-End of Choice (FEoC) approach versus the MLS Data Exchange (MDX) model. On the left, the traditional FEoC model limits listing input to one system, publishing data to other front-ends for view/edit capabilities. On the right, the MDX features interoperable listing input via multiple vendor front-ends via an independent database, emphasizing true choice without cutovers or conversions.

MLSs implementing FEoC without an MDX foundation also experience technology limitations when trying to adapt a vendor's database that was originally designed for a front-end system to meet new data-intensive use cases. This can lead to complexities with historical data, media, duplications, and distribution, dissuading would-be MLS consolidation partners. These complications also come with the added burden of communicating technical and complex concepts to members, who should never have to worry about the data mechanics occurring behind the scenes.

Instead, true "choice" requires complete interoperability between MLS front-ends. It's not enough to simply view and edit from multiple front-ends—brokers and agents need to be able to create listings from their platform of choice. The MDX model supports interoperability, and is the only way to fully deliver on the original promises of FEoC.

While it's not a new concept, MLS interoperability had been out of reach until recent years due to the lack of adopted standards and best practices around "writing" real estate data (Add/Edit). With RESO's recent certifications and endorsements, including Add/Edit, Business Rules, Data Dictionary 2.0, and Webhooks, MLS interoperability is not only possible—it is the clear end result of putting in place the industry's modern standards and best practices.

Enabling Intelligent Consolidation

MLS consolidation, though inevitable, is currently a political minefield—MLSs wrestle over governance, ownership, and financial implications, while vendors cling to power and fear being displaced.[2] An MDX transforms consolidation from a battleground into a strategic advantage for both participants and vendors, solving for the technical and political friction wrought from current efforts.

On a technical level, an MDX's central database with vendor interoperability simplifies consolidation efforts and makes consolidation more attractive to potential participants. When forming or joining an MDX, MLSs don't have to worry about any changes to member behavior. Furthermore, when new participants join the MDX and contribute more data to the whole, the total value of the data becomes increasingly valuable, as vendors can consume even more data from one central source. From a revenue perspective, an MDX immediately generates shareholder value for participants.

On a political level, MDXs don't mandate a loss of participant autonomy, nor do they require full organizational mergers. On the contrary, an MDX becomes a parent or umbrella organization, such as a regional MLS, and as a result there may even be new jobs created and new opportunities for those involved. Unlike data shares which are a relatively low-commitment partnership, data exchanges feature a greater level of integration between participant MLSs. From a governance perspective, MLSs consolidate data operations and decision-making to the MDX, and as a result are empowered to function like agile, modern technology companies and less like slow, non-profit organizations.

MDXs enable intelligent consolidation – they feature consolidation of the back-end data operations, but don't force participants into a full organizational merger. When industry experts promote the need for consolidation, one of the main reasons is because there is a lack of efficiency in having hundreds of fragmented databases. MDXs allow consolidation to occur on a data level without specifically requiring local MLS operations to cease, which is especially valuable to MLSs who wish to join an MDX while still maintaining autonomy over their local training and membership activities.

Beyond Listing Data

An MDX is not limited to 1) MLS data alone, and 2) a partnership among MLSs alone. As the term implies, an exchange allows for MLSs to create partnerships with outside providers of data deemed valuable to the stakeholders. MLS participants require access to vast amounts of data beyond the scope of what is considered Listing Data. With an MDX infrastructure, the traditional MLS organization is positioned to accumulate any manner of information, from any vendor/provider, on any term the partnership determines to be relevant. An MDX is also not only a data environment —it's also a data business model.

In a modern data services ecosystem, where data is free to flow to and from an independent database, profit centers can thrive. The more data, the more value created by those that rely on it. MLS Data Exchanges therefore allow MLSs to maintain vast data warehouses of information to serve both broker members, but also a wide variety of parallel data clients in a mutually-beneficial, for-profit marketplace.

Becoming an MDX

MLSs considering joining or creating an MDX should first evaluate their organization's readiness, and then determine whether they are best suited to create an MDX or to join one. An organization's readiness for an MDX begins with a full analysis of their current data infrastructure as well as the clarification and evaluation of their current business rules. By having a firm grasp of the current state of their data, their business rules, and their alignment with RESO standards, an MLS can begin to understand the scope and time associated with creating or joining an MDX.

MLSs who wish to increase shareholder value through an MDX but don't desire to manage the data operations themselves might consider joining an MDX instead of creating one. The long-tail of smaller MLSs (under 3,000 members) will be best suited for this due to the startup costs associated with creating an original MDX implementation and their lack of technology staff and resources. These MLSs will also likely lack the standing with their MLS vendors, who may not prioritize front-end integrations above those associated with larger MLSs. Mid-sized and large MLSs may also consider joining an MDX instead of creating one if they find an MDX partner who makes a compelling offer to join or merge efforts.

Growing MLSs who prioritize partnership and consolidation efforts may find it advantageous to create an MDX or to co-create an MDX with close partners. These MLSs have strong leadership technically and politically, with a dynamic capability to both execute on growth initiatives and create a technically-sound data operation. MLSs who wish to take the first step should start with an evaluation of current data infrastructure vendors who are capable of building an MDX. To increase the likelihood of success, make sure to review closely the characteristics detailed in this guide and to take great care to partner with an organization that meets each of these requirements.

About the Authors

Andrew Coca is the Founder and CEO of Modern.tech, a leading professional services company specialized in software development. He is also the creator of real estate media outlet MLSPropTech.com, and the Co-Founder of the Modern.tech subsidiary SourceRE, a leading provider of MLS Data Exchanges.

Bill Fowler is the President of SourceRE and one of the most vocal and influential leaders in the PropTech industry today. With over 25 years of industry experience, he is a regular presence on stage at major events, where he advocates for a tech-driven and proactive real estate future.

Daniel Jones is the CEO of Hive MLS, where his passion for real estate and innovative use of technology have redefined the MLS landscape. Under his leadership, Hive MLS has evolved from a regional service into a subscriber-centric powerhouse, tripling in size and delivering cutting-edge tools to empower real estate professionals and consumers alike.

Acknowledgments

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[1] Real Estate Standards Organization. (2024) Real Estate Data Sharing and Alignment White Paper. https://www.reso.org/real-estate-data-sharing-alignment/

[2] National Association of REALTORS® (2018) MLS Consolidation Resources. https://www.nar.realtor/about-nar/policies/mls-consolidation-resources