RESO IS LIGHTING UP
$1 billion in savings
FOR THE REAL ESTATE INDUSTRY

Are you interested in reducing your data aggregation costs *by 90%?*

Homes.com recently put RESO Standards to the test.

What is the real business value of RESO Data Standards? A new Homes.com Case Study shed some serious light on this subject. They have proven that moving to standardized data and the RESO Web API is saving them thousands of dollars in development time, allowing them to redeploy that energy to more innovative endeavors.

If you doubted the economic value of RESO Data Standards, and haven't adopted them, that's akin to reading by candlelight: you can do it, but long-term it's killing your eyes…

Check out the following Case Study to see why it's time for you to evolve your solution to the RESO Web API as well.

CANDLES STILL WORK
FOR CREATING LIGHT...

They create a romantic image of light, but none of us rely on it for our primary source of illumination anymore. In the old days, we all used MLS books – our version of the candle, to manage MLS information.

The invention of the electric light bulb in 1880 changed our entire world. Electricity shed light, literally, on a whole new world and paved the way for the Industrial Revolution. The Real Estate Transaction Standard or (RETS), is the real estate industry's version of the electric light bulb. RETS was invented in the last century in the late 90's by a consortium of technology specialists supported by the National Association of REALTORS®.

Today, we have LED bulbs that offer clean, controllable and efficient light. LEDs are far more rugged and durable than traditional incandescent light bulbs and they are 90% more efficient. The RESO Data Dictionary and RESO Web API are the LED of data standardization and transportation. As you'll see in the following case study, the RESO Web API saves 90% of the cost of transmitting real estate information.

Just like in electricity, progress in managing data is here. The RESO Web API makes the process of populating real estate technologies with real-time real estate data MUCH

more efficient. Today, you can still use an incandescent light bulb, but why would you when you have LEDs available? The same thing applies to real estate data. The smart companies are moving to the RESO Web API and away from RETS to save themselves time and tons of money!

RESO MAKES SENSE FOR START-UPS

When a new building is constructed today, LED fixtures are being used. RESO Data Standards and the RESO Web API are being used by new technology companies too. Why build a new tool engineered around a legacy technology? Companies like myTheo learned how to ingest real estate data much more easily using the RESO Web API. You can read about myTheo's experience using RESO Standards at https://www.reso.org/reso-case-studies/.

DOES RESO WORK FOR LEGACY COMPANIES?

But what about the established companies? They have RETS-based infrastructure already in place. They have taken the time and laborious effort to map data from more than 700 disparate markets and sources around the country including brokerages, broker franchises, multiple listing services (MLSs) and listing syndication companies. Each of these data sources have different data fields, making the process of normalizing MLS data across hundreds of markets very labor intensive and inefficient. These well-established real estate technology companies have done the hard and thankless work to make real estate data available nationwide.

Frankly, many have used their years of experience of delivering a nationwide "quilt" of RETS-based data feeds as a

competitive advantage. Legacy companies have been reluctant to adopt RESO Standards for fear they may be fueling competition and a LOSS of a competitive advantage. This case study will demonstrate WHY the smart companies are moving to the RESO Web API and taking the time to re-engineer their systems to work with the most contemporary method of data transport.

RESO DATA DICTIONARY– ELIMINATES INCONSISTENCIES

RESO has been hard at work to address the data inconsistencies between MLS markets. They have created the RESO Data Dictionary which provides a consistent way to describe and technically define data fields that are used for IDX feeds, back office broker feeds, listing syndication, all types of broker technologies, and nationwide real estate sites from franchises and third party sites like Homes.com.

The latest 1.6 version of the RESO Data Dictionary includes over 3000 standardized fields and values that make it much easier for brokers to compete in multiple markets and to

normalize data feeds from all over the country. The National Association of REALTORS® mandated MLSs that are REALTOR® owned and/or affiliated must adopt RESO Data Standards and stay current by adopting RESO Data Standards within one year of ratification. 95% of all brokers and agents participate in MLSs that offer standardized RESO data. If you would like to see a list of the MLSs and technology companies that are officially RESO Data Dictionary Certified and/or Web API Certified, visit https://www.reso.org/certificates/.

So, what's the incentive for a well-established data-dependent technology company to move off of RETS and on to the RESO Web API and Data Dictionary?

HOMES.COM PROVES RESO HAS A STRONG ROI

RESO solicited the help of Homes.com to answer this important question. Homes.com is convinced that standardized data fields using the RESO Data Dictionary is the right way to manage data. The breadth of fields included in the RESO Data Dictionary have allowed Homes.com to

add new features to the listing details pages on Homes.com. They also believe today's RESO Web API transport method is THE way to go and will help them run a more efficient data operation.
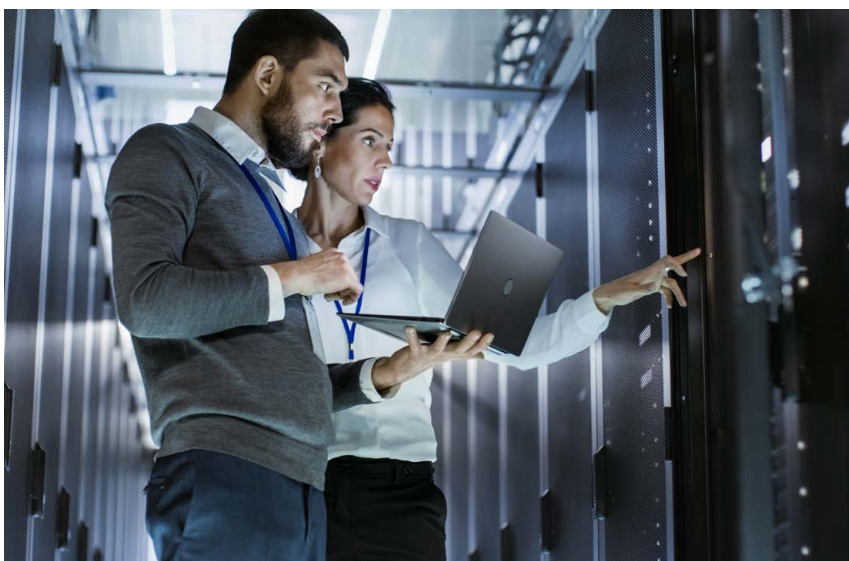
Throughout their history, Homes.com has provided advertising and marketing services to help real estate professionals connect with homeowners, buyers, and sellers and have also offered a suite of products to help increase broker and agent productivity. They have worked hard to build strong industry partnerships with MLSs, agents, brokerages, nationwide franchise real estate brands like Sellstate, Redfin, Coldwell Banker and other technology companies. In an industry where technology, businesses and market conditions are perpetually shifting, Homes.com is a name that

embodies stability, integrity and innovation. They have established a strong presence in real estate as a strong corporate citizen.

Today, they aggregate and normalize data from more than

700 real estate markets through hundreds of INDIVIDUAL data feeds with inconsistent descriptions and data fields.

HOMES.COM STEPPED UP TO TEST THE RESO PREMISE

Undertaking a change to the foundation of your product is labor intensive and risky. The challenges of making a fundamental change to your data structure is only magnified when you are one of the first companies that is adopting new data technologies and protocols. So why did Homes.com agree to participate in this case study with RESO?
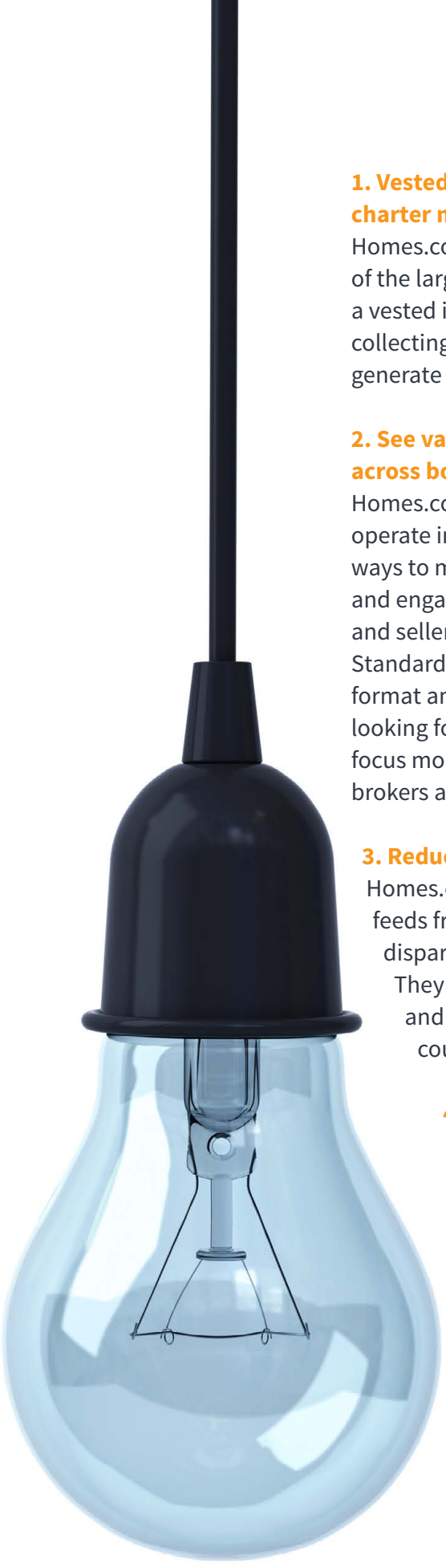
1. Vested interest in supporting RESO's mission as a charter member

Homes.com has been involved with RESO since its inception. As one of the largest aggregators of real estate data in the nation, they have a vested interest in finding the most efficient and effective ways of collecting and displaying real estate information to help their brokers generate significant listing exposure and leads.

2. See value for Homes.com broker customers in consistency across both the transport and format of real estate data

Homes.com works with many of the nation's largest brokers who often operate in multiple MLS regions. The company proactively searches for ways to make it easier to populate Homes.com with the most robust and engaging information they can to attract potential home buyers and sellers to their site on behalf of their brokers. Implementing RESO Standards is the foundation of creating consistency across both the format and transport of real estate information. Homes.com is always looking for ways to make their business more efficient so they can focus more of their energy on providing innovative solutions to agents, brokers and real estate consumers.

3. Reduced maintenance and management

Homes.com recognized that trying to maintain more than 700 data feeds from around the country dictated by ever-changing and disparate business rules is a very costly and complicated endeavor. They were looking for a smarter and less expensive way to manage and maintain a consistent high quality flow of data across the country.

4. Change is inevitable

Most importantly, Homes.com gets it. They recognize that change is inevitable and they want to stay at the forefront of the industry. That's why they have dedicated executive level technology resources to making sure they stay on the top of their game. They want to lead the change and get there early so they can continue to provide the best solutions for their clients. They are willing to INVEST in their business to ensure success for brokers for the long haul.

What was the goal of the Homes.com Case Study?

The goal of the case study was to validate the effectiveness of implementing RESO Standards, both the RESO Data Dictionary and RESO Web API, in relation to Homes.com's current listing data operations. Basically, they were trying to figure out if they would realize a return on investment by evolving their data infrastructure to RESO Data Standards.

Homes.com structured the study to evaluate whether they could justify a move to RESO Data Standards by measuring cost and time savings across four specific development themes:

1. **Time to build new MLS feeds**
2. **Time to convert existing MLS feeds to new vendors**
3. **Time to update established MLS feeds**
4. **Time to troubleshoot listing issues**

Historically, each of these data challenges have been quite time-consuming and require custom programming to address individual business rules, data displays and transport methods in 700 individual markets.

What were the development expectations entering into the Homes.com case study?

Appropriately, Homes.com believed that the first 2 to 3 MLSs would require the largest effort. In the first few installations, Homes.com learned which components of the local RESO-compliant feeds were consistent from MLS to MLS. They chose to work with a variety of MLSs, some with their own development resources, some with lower level RESO certifications and some with the latest, top level RESO Platinum certifications.

Homes.com was hopeful that RESO Standards would help reduce the complexity of consuming real estate data feeds across markets and deploying it within their products and services.

Who and what was involved in the RESO Implementation study for Homes.com?

To truly quantify the potential savings in cost and time that deploying RESO Standards could afford Homes.com, the company created a comprehensive study with several variables.

They worked with 6 MLS partners that worked with 3 different MLS system providers to be able to test their new approach in several different environments that were all RESO Certified.

Homes.com worked with RESO Data Dictionary Versions 1.5 and 1.6 Platinum certified RESO installations. They also worked with the RESO Web API Version 1.0.2 certified at the Gold, Bronze and Core levels to better understand how to deploy RESO Standards in a variety of levels and versions of RESO Certifications.

In their study, Homes.com compared the development time required to deploy a new feed using the standard RETS approach versus the new RESO Web API approach that includes consistent RESO Data Dictionary data fields. They wanted to see if moving from the real estate industry's version of the standard light bulb to the LED light bulb would be WORTH the effort.

Bottom-line, this study replicated the variables that exist in the "real world" when ingesting and deploying data from several MLS markets.

What resources did Homes.com tap into to complete their RESO Case Study?

Homes.com drew on several sources of training and expertise to understand the scope of the evolution to RESO standardized data before beginning their process.

RESO Workgroup Involvement

As a charter member of RESO, Homes.com is actively engaged in RESO Workgroups. They regularly participate and contribute to the Data Dictionary Workgroup and the Transport Workgroup.

Both of these core Workgroups were vital to their education and awareness about best practices related to making the move to RESO Data Standards. Workgroup participation is FREE to all RESO members.

2017 Clareity Developer Workshop

In addition to active participation in RESO Workgroups, Homes.com also participated in the Clareity Developer Workshop held in June 2017. This well attended event included some of the best and brightest real estate technology leaders sharing ideas about how to continue to create a more efficient and profitable technology marketplace.

RESO Staff, Peer to Peer Support and Conference Attendance

Homes.com also relied heavily on their peers that are also engaged in aggregating and normalizing real estate data from around the country. Attending RESO conferences helped Homes.com brainstorm ideas and troubleshoot challenges with their peers. At the RESO Spring and Fall Conferences, hundreds of the most progressive technology leaders get together to share success stories and brainstorm ways to continue to make RESO Data Standards more powerful.

Fellow Data Partners

Homes.com also drew on the expertise of their fellow data partners to follow best practices for deploying standardized information.

Documentation Utilized

Documentation is key to success with the migration from one data process to another. Recognizing the need for written guidance, insight and support, RESO has developed several documents and resources available FREE to developers, brokers, technology companies and MLS organizations.

Homes.com accessed the RESO WIKI at http://ddwiki.reso.org for the RESO Data Dictionary v1.5 and v1.6 which provides definitions of a variety of RESO concepts as well as the documentation for the RESO Web API. They tapped into the bright and helpful minds of RESO members with the RESO Collaboration System at http://members.reso.org/login.action. They also reviewed the information provided in the RESO Developer Resources at https://www.reso.org/developer-resources/ and RESO FAQ at https://www.reso.org/faq/. The RESO Best Practices at https://www.reso.org/reso-best-practices/ and Case Studies at https://www.reso.org/reso-case-studies/ helped guide Homes.com about the best ways to evolve to the RESO Data Dictionary and leverage the efficiency of transmitting data with the RESO Web API.

Shaun York from Homes.com said:

"RESO has made a ton of resources available to us to make the job of evolving to the RESO Web API a LOT easier. In addition, the staff of RESO has been extremely helpful at answering questions to keep our transition to the RESO Web API moving along very quickly."

What's the Verdict?

Homes.com tested the potential time and cost-savings of using BOTH the Data Dictionary on RETS servers as well as the RESO Web API to measure the potential advantages of both of these solutions.

The results were VERY encouraging! Their early results suggest that it makes financial sense for well-established companies to pursue RESO implementations as much as it does for start-ups.

These results from Homes.com pioneering project are the first quantitative PROOF that all of the hard work that has been put into building data standards for the past 20 years is worth it for well-established real estate technology companies.

Development Effort (Data Dictionary on RETS)

To measure the impact of evolving their platform to be consistent with the more than 3000 fields and values now available in the RESO Data Dictionary, Homes.com engaged with three listing sources to see how much savings they could realize as they reached scale.

It took Homes.com 228 hours to build the framework to be consistent with the RESO Data Dictionary. This was a planned, one time effort to prepare the company to make it much easier to map to feed sources in other markets. Once they built this framework, significant time savings were realized to map data in subsequent markets.

Homes.com was able to reduce the time of launching a RETS market from 25 to 16 hours by using the new Data Dictionary offering.

Let's do the math on that SIGNIFICANT time savings! Let's use a standard of $150 per hour for a developer and let's be conservative and say that only 1 developer is involved with the project.

At $150 per hour, in the first installation of RESO standards, it cost them $3750 per market to normalize the data. In the second market they reduced that cost by 35% to just $2400.

Now multiply that number by 700 MLSs.

Using these assumptions, Homes.com can save nearly $1,000,000 by moving to RESO standards over time. It's not hard to sell that type of savings to even the most conservative CFO's! Now let's go even further. From our calculations there are at least 1000 companies that offer data-dependent technologies in real estate.

If we take that $1 million in savings and multiply it by the 1000 companies offering data-centric technologies, moving to RESO can save the industry $1 billion dollars over time.

Development time with the RESO Web API

As dramatic and exciting the cost-savings are with the RESO Data Dictionary, the story gets even more exciting with the RESO Web API.

The simplicity of using the RESO Web API built on top of OData and other global data standards helped Homes.com simplify the data ingestion and distribution process even further.

With two RESO Web API data providers implemented on Homes.com the development team was able to realize a reduction in implementation time from 24 hours on legacy RETS to just 2 hours on RESO Web API with Data Dictionary!

In the second instance using the RESO Web API, Homes.com cost to deploy a feed using the RESO Web API was just $300!

Again, using the equation we used to measure the cost of deploying feeds across 700 MLS markets, the cost for the RESO Web API reduced the cost by more than 90% to just $210,000 to map the entire country.

For a new technology company operating in just 2 or 3 markets, they can leverage the RESO Web API for less than $1,000!

This type of savings opens up ALL kinds of opportunities for smart technology companies across the country to enter the marketplace. It makes it EASY for well-established companies to justify the move to RESO Data Standards as well.

The move to RESO Standards will help brokers launch seamlessly integrated technologies, find exciting new ways to differentiate their brands and attract new prospects and clients to their company.

Amazing Results to Date

Many are still reluctant to believe that the investment in time to evolve to RESO Standards makes sense. We have to thank Homes.com for clearly demonstrating that becoming part of the future of real estate technology is well worth it!

Homes.com realized TWO of their FOUR goals articulated in just a few months!

1. Time to build new MLS feeds - 92% reduction in development time!

2. Time to convert existing MLS feeds to new vendors - 92% reduction in development time!

## What can YOU do to help realize the potential of RESO?

For MLSs
Many MLSs say nobody is asking for feeds in their local markets based upon RESO Standards. Instead of waiting for innovation to knock on your door, actively promote and take credit for implementing RESO Data Standards and securing your official RESO Certification. Let your brokers know they have access to standardized data, making it easier to operate in multiple MLS markets and seamlessly integrate their technologies. All of this is possible because their MLS did the hard work to offer data feeds that are compliant with the RESO Data Dictionary and RESO Web API.

Use the FREE RESO Marketing Toolkit at https://www.reso.org/reso-marketing-toolkit/ to actively promote how your brokers can leverage the power of their local MLS data offered in a standardized format. Just like all technology innovators, it is the MLS's job to help your customers know WHY they should move to your local RESO compliant data feeds.

The next time you have a Broker Forum, include a short conversation about how RESO Standards can help brokers create efficiencies in their technology stack. There's a FREE short RESO presentation that you can easily pull slides for.

Just download the RESO Marketing Toolkit at https://www.reso.org/marketing-toolkit-request-form.

We have to work together to drive demand of RESO Standards to move our industry forward.
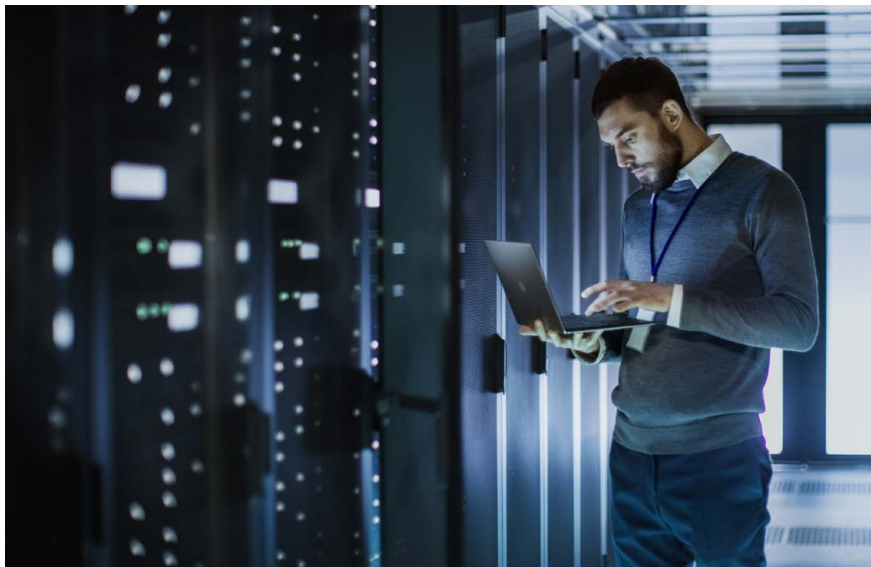
For Technology Companies

If you want to save hundreds of thousands or even millions of dollars aggregating data across multiple MLS regions there are three suggested actions for you.

1. Become a member of RESO/FREE RESO Certification
Becoming a member of RESO will give you access to all of the RESO development resources, discounts for conferences, and importantly, the ability to contribute to the formation and prioritization of RESO data standards.

With your membership, you can also become RESO Certified FREE of CHARGE saving yourself hundreds or even thousands of dollars!

2. Attend RESO Conferences
The RESO Conferences are filled with smart and passionate technology leaders more than willing to help any company get up and running with RESO Standards. At the conferences you learn about the scope and progress of each of the RESO Workgroups, get exposed to real world RESO implementations and learn from some of the best and brightest about the latest trends in technology.

3. Gain a Marketing Advantage! Get RESO Certified!
More and more brokers are including the requirement to be RESO Certified to their technology selection criteria. Get ahead of this wave and get certified today. There are tons of development resources available to you to help you get started.

For MORE Information
For more information about the Real Estate Standards Organization, please go to https://www.reso.org.

If you would like to contact RESO, please send an email to info@reso.org and be rest assured you will have a quick response to your inquiry!

If you would like to contact a RESO staff member, you can go to https://www.reso.org/staff/.

RESO Case Studies

If you would like to read about other success stories using RESO data, click on the links below:

RESO Standards: Are they a Fairy Tale or the Future?
https://www.reso.org/reso-case-studies/

A Bold Move: How RMLS converted all of its IDX feeds to RESO Data Standards
https://www.reso.org/bold-move-rmls-converted-idx-feeds-reso-data-standards/

The Short and Simple Road for an MLS to Offer ONLY RESO-Compliant IDX Feeds
https://www.reso.org/the-short-and-simple-road-for-an-mls-to-offer-only-reso-compliant-idx-feeds

Looking for Job Security? Brokers are Looking for THIS!
http://www.wavgroup.com/2017/09/05/looking-for-job-security-brokers-are-looking-for-this/

RESO Development Resources

Data Dictionary v1.5 Wiki
http://ddwiki.reso.org/display/DDW/RESO+Data+Dictionary+Wiki+v1.5

Data Dictionary v1.6 Wiki
http://ddwiki.reso.org/display/DDW16

RESO Web API v1.0.3
https://www.reso.org/reso-web-api/

RESO Collaboration System
http://members.reso.org/login.action

RESO FAQ
https://www.reso.org/faq/

RESO Developer Resources
https://www.reso.org/developer-resources/

RESO Best Practices
https://www.reso.org/reso-best-practices/

About RESO

The mission of the Real Estate Standards Organization (RESO) is to create and promote the adoption and utilization of standards that drive efficiency throughout the real estate industry. RESO was incorporated in November 2011 as an independent, not-for-profit trade organization that was previously a section of the National Association of REALTORS®. RESO has more than 775 active members, including NAR, multiple-listing services, real estate associations, brokerages and industry technology providers. For more information, visit www.reso.org.

Contact RESO staff at www.reso.org/staff/.

About Homes.com

Homes.com is a top real estate search destination, visited by more than 14 million consumers each month. Homes.com leverages search visibility to connect this in-market audience with real estate professionals in their local areas of interest. Homes.com offers the following real estate marketing and media services: brand advertising, property listing branding and exposure, search engine marketing and instant response lead generation to help real estate agents and other real estate related partners succeed online. For more information, visit https://www.homes.com.

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