



# Research & Development Workgroup

Greg Moore - Chair



**2017**  **RESO™ TECHNOLOGY SUMMIT**  
ORCHESTRATING COLLABORATION & INNOVATION

**Welcome**

# **Greg Moore**

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# Agenda

- **Review RESO Antitrust Policy: Suzanne Biegenzahn or Workgroup Chair**
  - RESO strives to increase competition in the marketplace and will not be a forum for anti-competitive conduct. The RESO Antitrust Policy governs the activities of RESO and its members, including this meeting. A link to the policy was emailed to you with the meeting agenda. Please consult RESO's counsel if you have any questions about the policy.
- **Event Tracking**
  - Review and discuss the Business Case to standardize listing lifecycle event definitions and related data collected or updated - Ashish Antal
- **Broker Data**
  - Review and gather input on Business Case to standardize data that is related to the listing, but not commonly/ever included in your typical MLS listing input.
  - Discuss and outline Business Case for data Brokers/Brokerages are required to provide MLSs to maintain authorization for their brokers' and agents' data feeds; IDX sites, CMA products, ....
- **MLS Data Distribution – Best Practices**
  - Present the best practices document developed for CMLS - Greg Moore
- **New Business**
  - Suggestions for R&D workgroup

# Event Catalog-Listing Tracking

Define standards for Data Accounting and Compliance. Creating an Event Log is a solution that will move us in this direction. The MLS community is already tracking or trying to implement solutions to track listing movement but there are no standards. RESO can define a catalog and make it available to the community to track listing activity. This enables the MLS community to have an Event Log that can be exchanged and aggregated using the Event Catalog Standards and creates opportunities to build lightweight search applications, monitoring dashboards and compliance tools.

<http://members.reso.org/display/RD/2013-09-19+-+Event+Catalog+-+Listing+Tracking>

## Real Estate Event Exchange on the Internet

Capturing Events and Sharing Real Estate Related Activity on the Web

[https://docs.google.com/document/d/1mUSJlrd97WJT\\_z9NBa9z0k\\_i7mW\\_skuwlp8PYqX7fZc/edit](https://docs.google.com/document/d/1mUSJlrd97WJT_z9NBa9z0k_i7mW_skuwlp8PYqX7fZc/edit)



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# Event Catalog-Listing Tracking

## Background:

Listings have a lifecycle they go through and there are many events that happen in the listing lifecycle. When MLSs are putting together a new search system it is very hard for them to carry the history from one system to another system. An example is MLS Listings wanting to add a new search system, when the listings are pulled through the standard feeds there isn't any log pulled such as how many times a property was on/off market and the changes reflecting each marketing cycle, so the history gets lost as part of the process.

The Event Catalog would allow for the logs to pass around in a standard format therefore anytime a significant event is recorded, it is put into a format that everyone could consume to produce a standard audit trail for any given property. If you read the paper there are certain events that can be tracked through a standard feed. There is also a mention of PUID so this information could be aggregated from various sources and attached to a single property.

The main purpose of the event catalog is to exchange a targeted set of attributes you could use to monitor market activities e.g. what changes when a price gets updated, or vendors implementing updates wanting to know what happened when the listing goes from active to pending to provide an edit interface for the fields that are changed and this helps tell what the workflow looks like, what fields are impacted by each change and how many fields are changed when a listing goes on/off market.

-Ashish Antal

# Event Catalog-Listing Tracking

This may play well with the Internet Tracking WG solution considering how the Data Dictionary (DD) has already performed the "grunt" work and defined the fields in the HistoryTransactional Resource (HTR). It could be similar to the WG's approach with the OpenHouse and SavedSearch resources.

Theoretically, we would just add a new ObjectType for the HTR and have the ObjectID be either the HTR ResourceRecordID, ResourceRecordKey or ResourceRecordKeyNumeric. We would then look at the current EventTypes for possible matches OR add a new one like ObjectModified. A client who has both the DD Tracking data and the DD HTR data would perform a simple cross-reference query to create something usable.

Down the road, we could look at the Internet Track WG fine-tuning the process with more specific EventTypes related to the HTR.

-Chris

# Broker Data Standardization

**Summary:** Identify and standardize data that is related to the listing, but not commonly/ever included in your typical MLS listing input.

**Detailed Synopsis:** Work with RESO Broker members, MLSs, MLS system providers, Vendors and the Data Dictionary workgroup to define and standardize fields (data elements) needed beyond the listing data input to an MLS. These fields are to be made available via the RESO API back to the brokerage and data consumers who provide services to brokerages.

<http://members.reso.org/display/RD/2017-03-07+Broker+Data+Standardization>

# Broker Data Standardization

## **Broker data categories:**

Accounting

CRM / Marketing

Lead / Referral Source

Transaction / Document Management

Form / Contract

Public Records

MLS

Statistics / Business Intelligence

Website

Front Desk / Appointment

Showing

Specific vendor ordering (e.g. signage, virtual tour, photo, flyer)

Syndication



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# Broker Data Standardization

Discuss and outline a Business Case for data Brokers/Brokerages are required to provide MLSs to maintain authorization their brokers' and agents' data feeds; IDX sites, CMA products, ....

## MLS Data Distribution - Best Practices

Commercial or professional procedures that are accepted or prescribed as being correct or most effective.

# MLS Data Distribution - Best Practices

## Data providers:

- Ensure data provided is current and accessible via a RESO certified API which provides certified Data Dictionary resources and data feeds.
- Ensure Brokerages can access and retrieve their complete content as allowed by the local rules and laws; listings (including off-market, in-progress and coming soon), media, roster, open houses, tours, saved searches, ... via RESO certified services as outlined above.
- Ensure all data consumers of the API are aware of the RESO certified resources available.
- Request/require data consumers use the API in real-time rather than replicating the data when possible under their use case.

# MLS Data Distribution - Best Practices

## Data providers:

- Ensure each resource has a record modification date specific to the data available in the resource; i.e.: an image modification date indicating when the image was last updated.
- Provide clear documentation outlining available resources provided by the API, the version of compliance for the server and data dictionary as well as any special use or restrictions on data use and/or display.
- Review and update data access rules and restrictions as needed to accommodate (real time) API access, i.e.; the number of accesses allowed by an app or data consumer per minute/hour/day, the number of records and images served and the search-ability of fields.

# MLS Data Distribution - Best Practices

## Data providers:

- Content deleted from the host server (listings, media, saved searches, ...) is clearly identified for data consumers so they can remove their copy of the stored data.
- Provide a minimum of 4-weeks written notice of significant data changes to data consumers with documentation outlining the changes being made.
- Provide access to a test platform for data consumers (staging server access) for significant data changes minimally 2-weeks prior to release.

# MLS Data Distribution - Best Practices

## Data providers:

- Monitor the API usage to ensure data consumers are using efficient data and media selects.
- Ensure system availability exceeding 99.9% with acceptable performance from API requests.
- Request/require data consumers change their access passwords/passphrases bi-annually. This will assist with data security as well as maintaining current data consumer contacts.
- Require data consumers secure all credentials and data stored.

# MLS Data Distribution - Best Practices

## Data providers:

- Provide an in-house or RETS server vendor contact information (recommend a group email address; i.e. DataServices@rmls.com) to data consumers for assistance with access and reply promptly to requests; within 1-business day.
- Recommend data consumers and service vendors to be RESO members and participate in the standards creation and refinement process.
- Recommend data consumers and service vendors certify their client(s).
- Provide URI (CDN) based media and request/require data consumers use the URI in real-time, instead of replicating your media store.

# MLS Data Distribution - Best Practices

## Data providers:

- Comply with the NAR IDX and VOW policies (Note: the below references the 11/14 adoption, to verify current policy use the URL below) :
- MLS organizations owned and operated by associations of REALTORS® are required to adopt and implement the Real Estate Standards Organization (RESO) Standards, including: the RESO Data Dictionary , the RESO Web API and they must keep current by implementing new releases of RESO Standards within one (1) year from ratification.
- Requests for IDX and VOW feeds/downloads must be acted on by the MLS within five (5) business days from receipt, barring extenuating circumstances related to an individual's qualification for MLS Participation, and review of the participant's and vendor's use of the IDX information consistent with the MLS rules, in which case an estimated time of approval or denial must be issued.
- MLSs must, if requested by a participant, promptly provide basic downloading of all active listings, a minimum of three (3) years sold\* listing data, non-confidential pending sale listing data, and other listings authorized under applicable MLS rules and may not exclude any listings from the information which can be downloaded or displayed under IDX except those listings for which a participant has withheld consent, or listings for which the seller has prohibited Internet display.
- <http://www.realtor.org/handbook-on-multiple-listing-policy/policies/policies-data/advertising-print-and-electronic-section-1-internet-data-exchange-idx-policy>



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# MLS Data Distribution - Best Practices

## Data Consumers

- Know the RESO certifications the data provider has achieved and utilized the certified resources and data feeds.
- Ensure data pulls from the API (or RETS server) are as efficient as possible. Utilize the specific resource modification date available when replicating data to a local server. Note: incorrectly accessing MLS Data through the API (or RETS server) can cause unintended consequences, such as a degradation in overall performance of the MLS Data Distribution System or increased MLS costs in resources such as bandwidth.
- Pull the payload specific to the data use case

# MLS Data Distribution - Best Practices

## Data Consumers

- Comply with the MLS data access and display licenses and rules
- Provide a group email address to data providers to ensure contact is maintained regardless of role or staff changes.
- Maintain an up-to-date copy of the data provider's metadata for reference and troubleshooting (unannounced changes).
- Maintain a regularly updated data and image store
- The MLS's IDX download must be refreshed to accurately reflect all updates and status changes no less frequently than every twelve (12) hours\*

# MLS Data Distribution - Best Practices

## Data Consumers

- Join RESO and participate in the workgroups. As a data consumer your experiences and expertise will assist with the creation and improvement of the RESO standards.
- Adequately secure all content locally stored
- MLS organizations owned and operated by associations of REALTORS® must comply with the NAR IDX and VOW Policies\*. Leverage the policies and RESO staff for assistance with enforcement of the policy when Brokers are unable to gain access to IDX data as compared with the policy requirements.

<http://www.realtor.org/handbook-on-multiple-listing-policy/policies/policies-data/advertising-print-and-electronic-section-1-internet-data-exchange-idx-policy>

Next R&D Meeting  
Thursday June 8th 2pm eastern-time

To join the R&D workgroup

Click the Join R&D Workgroup link

[members.reso.org/pages/viewpage.action?pageId=983942](https://members.reso.org/pages/viewpage.action?pageId=983942)

WHEN? HOW? WHERE? WHO? WHAT? WHEN? WHERE? WHAT? When? WHERE? HOW? WHEN? What? Where? When? WHERE? What? When? What? HOW? WHEN? What? When? Why? WHEN? When? WHAT? When? Why? HOW? What? WHEN? Why? WHERE? When? HOW? When? Why? HOW? What? WHEN? Why? WHERE? When? HOW? When? Why?

# ANY QUESTIONS?





**Don't forget to take the session survey in the  
conference app!**



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