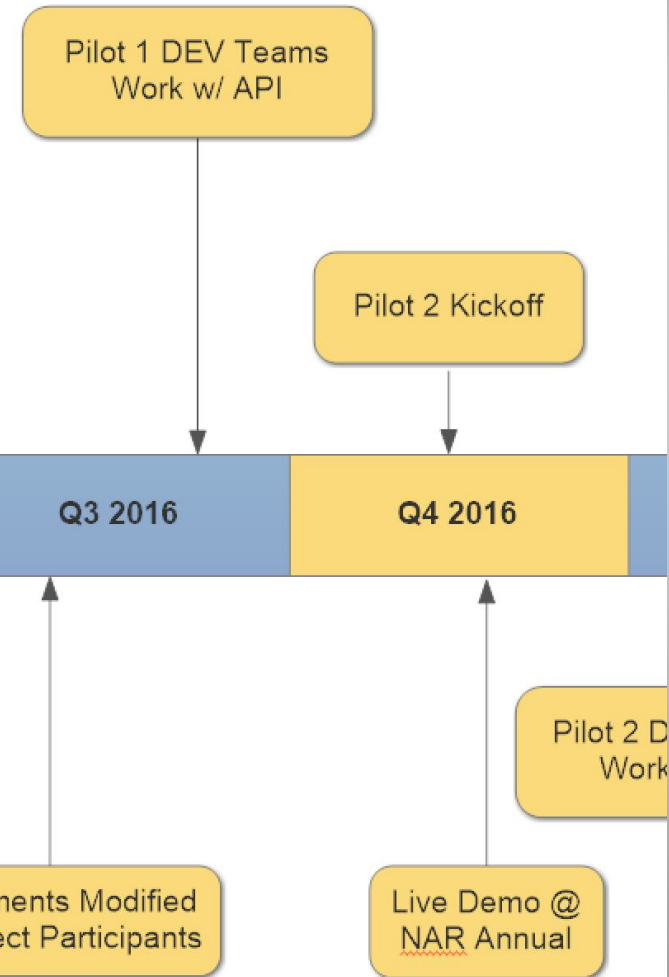


Upstream – How it REALLY Works

Alex Lange, President & CEO, UpstreamRE





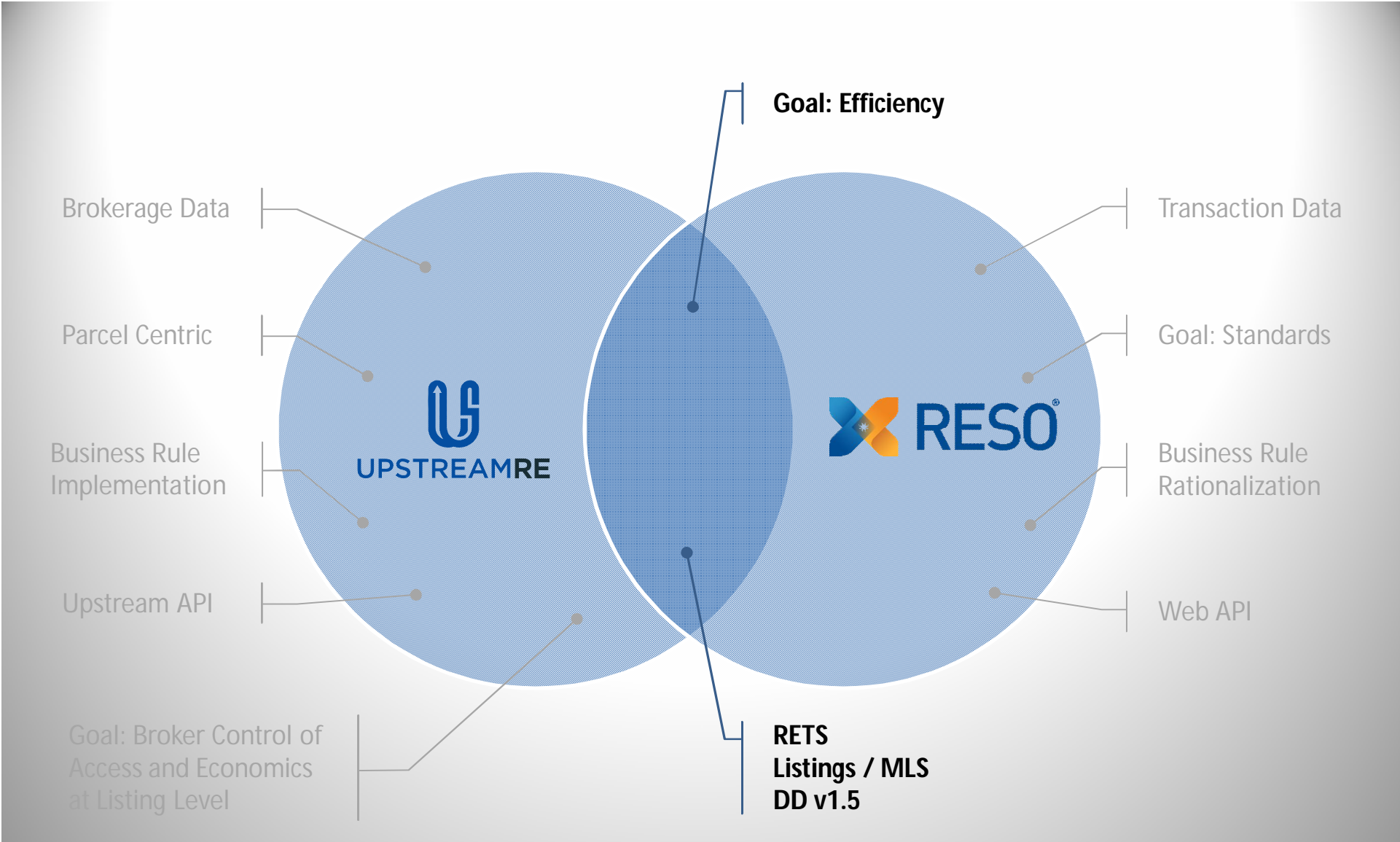
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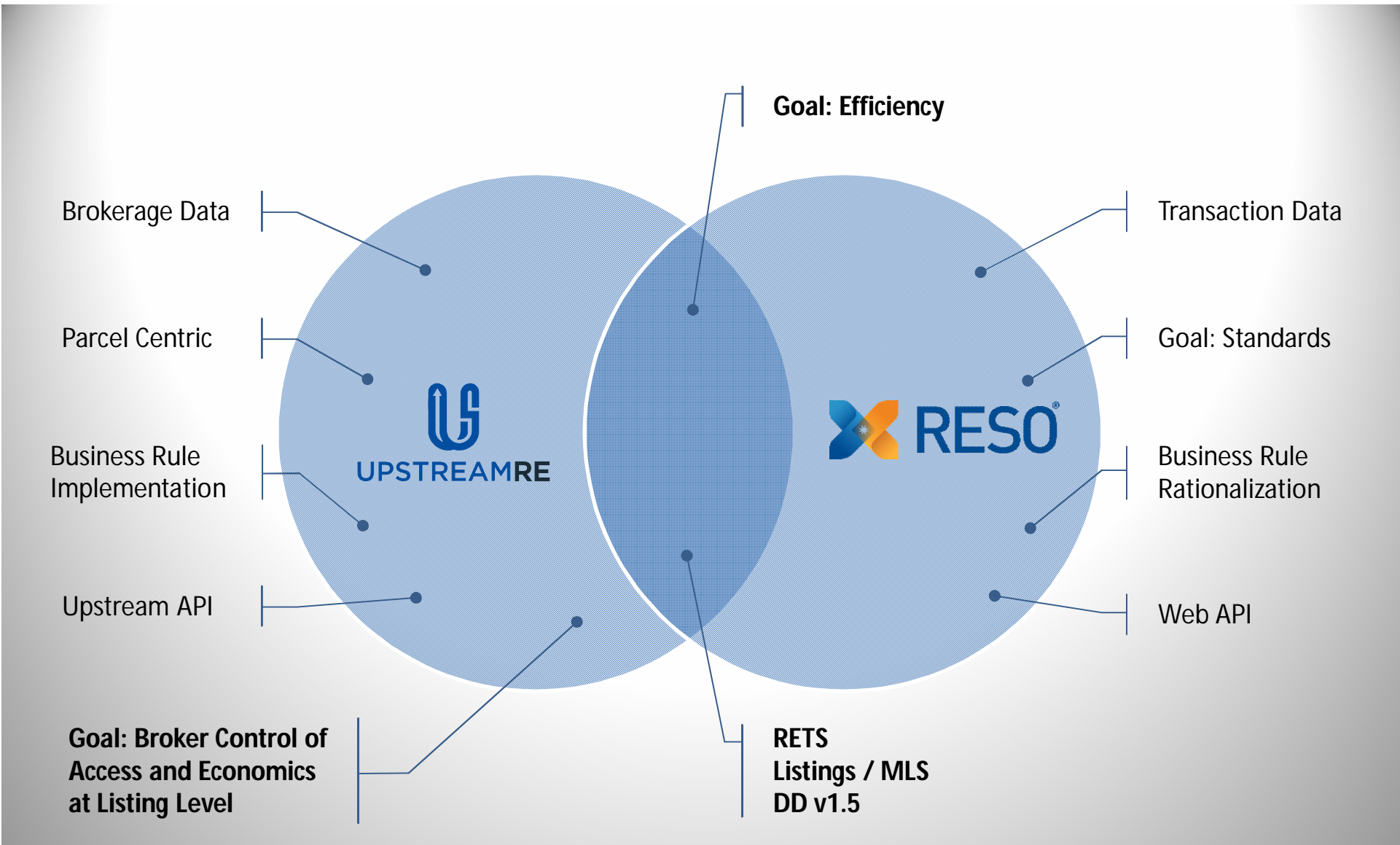
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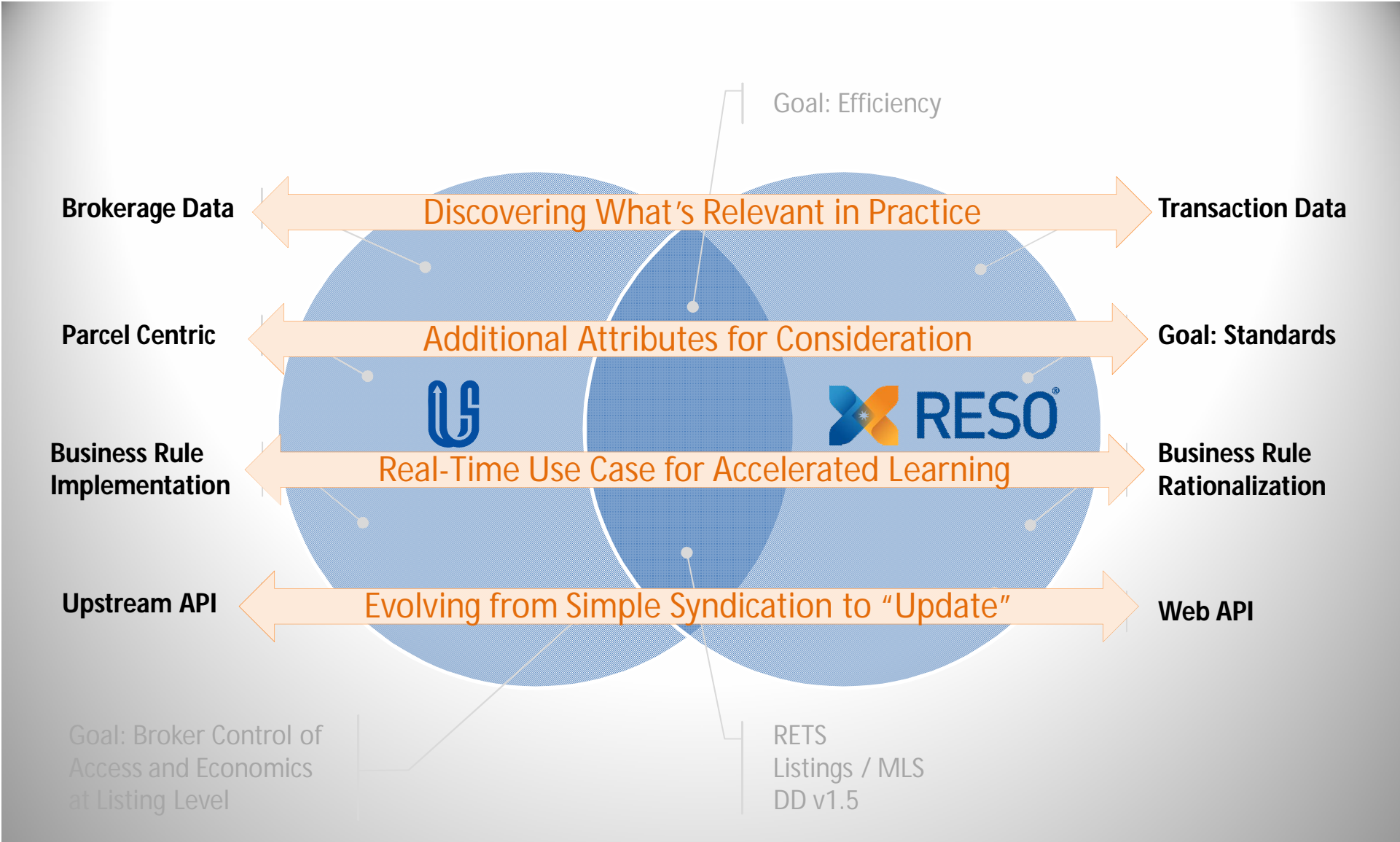
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#RESO16



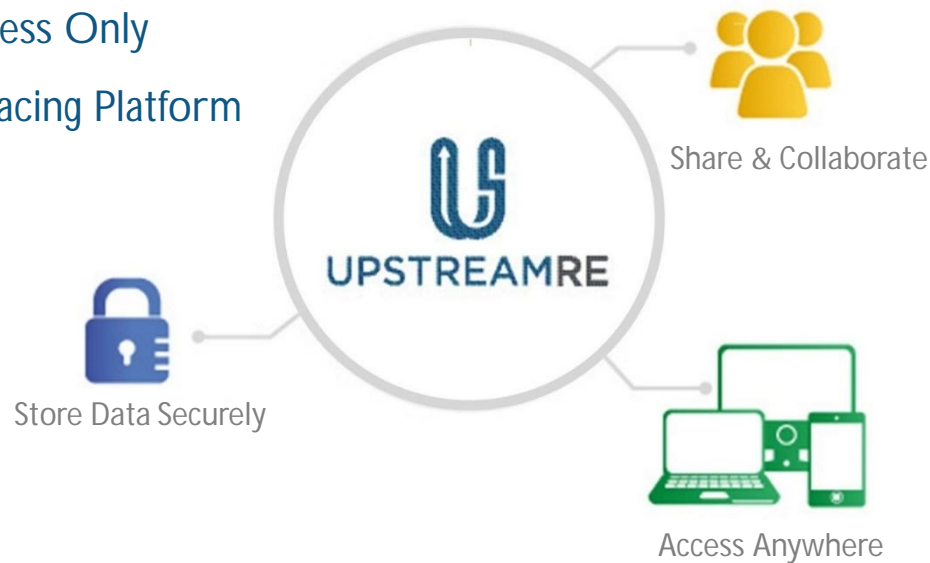




#RESO16



- ✓ Restricted Brokerage Access
- ✓ Enterprise Class, High Availability
- ✓ Entitled Access Only
- ✓ No Public Facing Platform



- ✓ Brokers Determine Who, What, When
- ✓ Extends Beyond Parcel Data. Roster, Vendor, Transactions, Contacts, etc.
- ✓ Agreements Between Brokerage and Recipients (use, display, etc.)
- ✓ Optional Participation
- ✓ Upstream integrates into the MLS ecosystem
- ✓ Web, Mobile, Native

UpstreamRE is akin to the Google Drive of Real Estate Data



#RESO16

Upstream & RESO Standards



Standard Names

- Listing input, data storage, and delivery is natively implemented using RESO standard Data Dictionary names (v. 1.5)
- Fields not supported use names that can be changed as the Dictionary evolves
- Parcel-centric nature introduces new attributes
- RESO standard names leverage XML-world, PascalCasing conventions
- RESO evolved to adopt a JSON standard
- Upstream fully embraces JSON with Google's JSON Style Guide which states names must be camelCased, ASCII strings



#RESO16

Standard Names & Field Level Compliance

PascalCasing	camelCasing
Iphone	iPhone

"The applicant's field name **MUST** identically match the Data Dictionary Standard Name when the definitions match."

Not an identical match - Therefore a failure of Field Level Compliance



RETS Layout

- Upstream implemented modified RETS delivery layout that:
 - supplemented it with enumerated collections
 - better expresses the parcel-centric design
- Upstream was responsive to the feedback loop
 - RETS layout as an alternative option, using the RESO Dictionary Platinum format.



Business Rules

- Upstream will incorporate the business rules across hundreds of MLSs.
 - There are hundreds, sometimes thousands per MLS
 - Patterns emerged
- Upstream continues to contribute to the evolution of a business rules standard in the RESO R&D workgroup



Web API

- The RETS layout and the current Web API definition works well for syndication (distribution)
- RESO and the Data Dictionary are expanding beyond MLS fields and evolving from simple syndication to “Update”
- Updating presents interesting challenges not seen in today's distribution paradigm



#RESO16

Web API – MLS to RETS Mapping

MLS Statuses

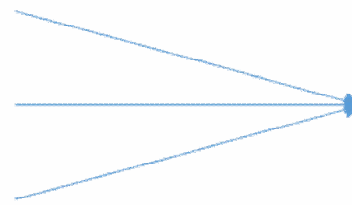
Active Kickout

Active Contingent

Active Option Contract

RESO Status

Active Under Contract



#RESO16

Web API – RETS to MLS Mapping

RESO Status

Active Under Contract

MLS Statuses

Active Kickout

Active Contingent

Active Option Contract



#RESO16

Web API – RETS to Multiple MLS Mapping

RESO Status

Active Under Contract

MLS Statuses

Active Kickout

?

Active Contingent

Active Option Contract

?

Bumpable Buyer

Short Sale Pending

MLS 1

MLS 2



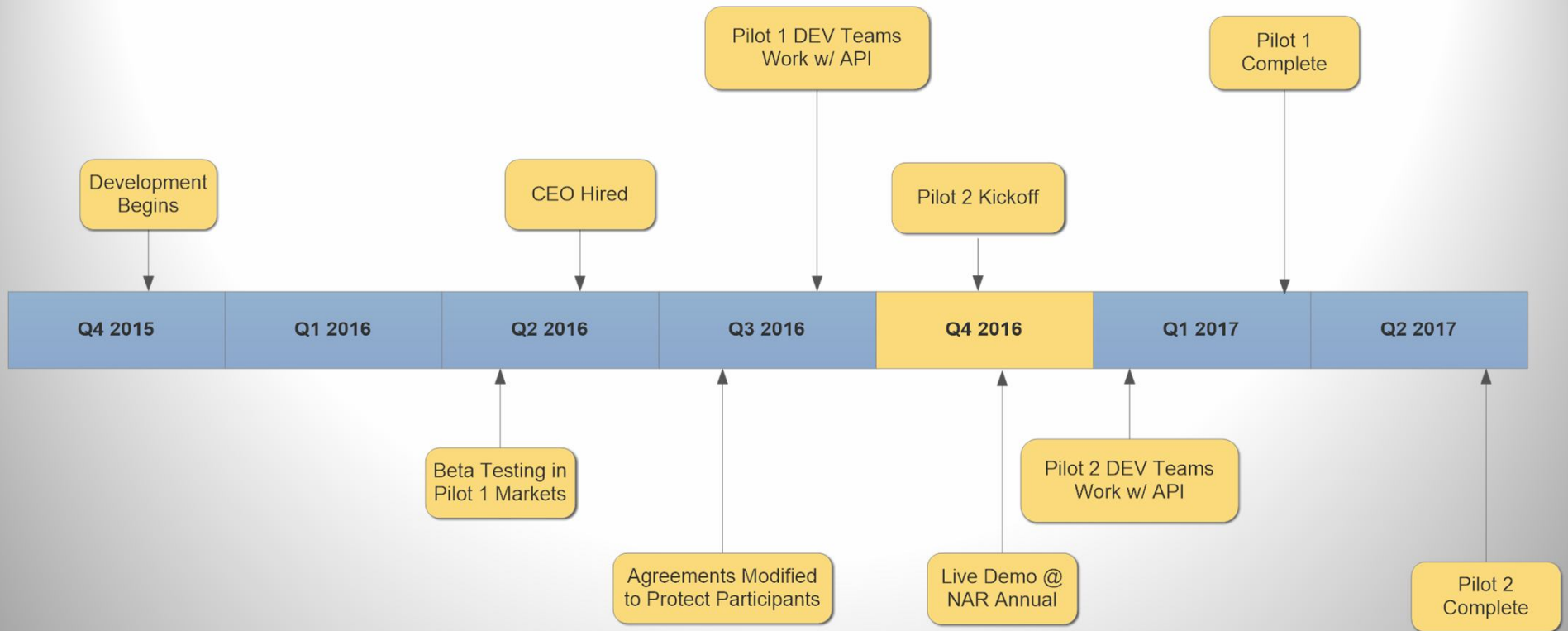
#RESO16

Web API – Evolution to “Update”

- Designating a listing in a RESO status alone may not be enough
 - Other attributes will be needed to indicate the intended status in the MLS.
- Similar challenges must be resolved in enumerations:
 - A water source of “Private” in Upstream listing entry using the Dictionary could be “Private Co-op” or “Private/Mutual” in one of our pilot MLSs
 - A water source of “Public” could be “City Water” or “MUD Water.”



Upstream Progress - Timeline



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Upstream Progress – Pilot Markets

- MLSListings Inc.
 - Pacific Union International, Inc.
 - Keller Williams Los Gatos Estates
 - ~~RE/MAX Gold~~
- NorthstarMLS
 - Edina Realty, Inc
 - RE/MAX Results
 - Keller Williams Classic Realty Northwest
- NTREIS
 - RE/MAX DFW Associates
 - Keller Williams Arlington
- RMLS
 - Coldwell Banker Bain/Seal
 - RE/MAX Equity Group
 - Berkshire Hathaway HomeServices Northwest Properties
 - Keller Williams Realty of Eugene and Springfield
- West Penn MLS Inc.
 - RE/MAX Select
 - Northwood Realty Services
 - Berkshire Hathaway HomeServices The Preferred Realty
 - Howard Hanna

Phase 2 Pilot: 7 new MLSs, 11 new Brokers and adds FlexMLS and Paragon



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Upstream Progress – Pilot Vendors

- Engaged with 42 select vendors
- 20 have active teams authenticating and accessing the API
- All using Upstream API w/ Enumerations
- Implementation has taken a little as two weeks
- Live Demo at NAR Annual
- Current pace targets 100+ in Q1

- BackAgent
- Boston Logic
- Collateral Analytics
- Corefact
- Imprev
- Instanet Solutions
- Listings to Leads
- Lone Wolf Paperless Pipeline
- Real Scout
- ShowingTime
- Skyslope
- VoicePad
- Xpressdocs



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UpstreamRE.com

- Goal is Transparency
- Look for Updates, Presentations, Q&A and more
- Good... Bad... Ugly... See Behind the Scenes
- Sign up today!
- Alex@UpstreamRE.com

