



### Opportunities, Challenges, and the Next Evolution of Real Estate Data











# Web API Replication

# Supported by 100s of MLSs

## **Rapid maturation in the last 6 months**

## Allows for more efficient and advanced data handling capabilities for vendors like us





# Learning from other growth industries







hundreds and thousands of local data sources, industry-wide data standards, changing outdated print experiences to digital, building the early applications to change the consumer experience, lowering costs for local data vendors while helping them improve their data acquisitions and investments in the hundreds of millions and billions of dollars disruption when industry outsiders disregard standards and data sources acceleration of existing industry players to compete



## a story

a drastic increase in consumer usage and revenue for everyone

## **HERE Technologies** Largest supplier of spatial data globally



## \$880M IPO \$8.1B Acquisition \$1B+ Annual Data Revenue



### census and local uses navigation systems smartphone apps fleet tracking athletic and health applications **TV & radio traffic reporting** video games data used in

## self-driving cars

**GIS** applications

movie scene creation



### smarter cities





## 100+ navigable countries2D & 3D data2D & 3D data2.4 million changes per day

Raw data in counted in petabytes (a petabyte is a million gigabytes)

## about the data 35 M+ kilometers Real-time local data

## Each car collects 140 GB of data per day



### <sup>s a</sup> 225+ attributes

Real-time local data including traffic, fuel prices, road closures, events, parking, etc



## Field data collection

### **Expert communities**

### **Production teams**

### **End-users**





## **Real-time probes and sources Partners**

## data creation

Local source data (data sharing with cities, counties, states, federal, local private companies, etc.)



## spatial milestones

**1984: Tele Atlas founded 1987: Navteq founded** 1999: AOL buys MapQuest for \$1.1 Billion 2000: Vicinity IPOs for \$120 Million 2002: Microsoft acquires Vicinity for \$96 Million 2006: Navteg acquires traffic.com for \$179 Million 2007: Nokia acquires Navteq for \$8.1 Billion 2007: Microsoft Acquires MultiMap **2007: TomTom acquires Tele Atlas for €2 Billion** 2007: Google invests \$300 Million to build out their own data. 2013: Google Acquires Waze for \$966 Million 2014: Inrix Raises \$50M (\$68 Million) 2015: Consortium acquires HERE for €2.8 Billion 2017: Mapbox Raises \$164 Million (\$63M raised prior)



## Web API first impressions



## great community support better documentation better long term option to RETS improved standardization cheaper to support familiar restful protocol happier developers first impressions

## some early divergence from the data dictionary

### forced adoption

### rushed moves to drop RETS



replication growing pains when we first started

### not plug and play to replace RETS



## strengths An opportunity for us as an industry to learn from our RETS experience...

## Standardization Documentation Community



## strengths Speed **Developer familiarity & happiness** Flexibility **Fast iteration** Less processor intensive **Active developer community** Improved documentation





## it's not RETS Larger datasets **Connection limitations** More storage intensive Less processor intensive Very different ETL model Still maturing and evolving **Commitment to get it right**

## **Don't rush the transition to Web API Understand that Web API isn't RETS** Local caching is super important **Refinement of the initial "download" process**

# our lessons learned **\$EXPAND** queries for media should be a requirement





## our lessons learned

## Use the resources out there

## **Contribute to the resources out there**

## **Partnership is important**





## **RESO** is important



## scott@showcaseidx.com kurt@showcaseidx.com



