Universal Property Identifier (UPI) Survey



PURPOSE AND METHODOLOGY

The Universal Property Identifier (UPI) is a standard way to reference a property. The specification developed by RESO includes support for identifying properties internationally in a hierarchical manner starting with the country. Using the UPI, a property can be referenced in an unambiguous way, which is valuable for many use cases, including deduplication and globally unique references in different systems. The UPI works essentially by specifying a property's "serial number" as a legally defined entity. Survey responses will help the UPI Workgroup evolve the UPI and UPI Registry.

A total of 155 surveys were completed for use in this analysis. Percentages for single-response questions are reported to the number of respondents who answered each question, or specific portion of a question, which may vary. Percentages for multiple-response questions are reported to all respondents of that question. The results analysis includes answers from respondents who took the survey between December 22, 2020 and January 15, 2021.

Persons

137

4

2

143

Persons

106

18

7

6

6

143

Percent

95.8%

2.5%

1.2%

100.0%

Percent

74.1%

12.6%

4.9%

4.2%

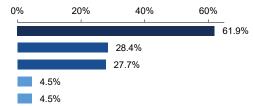
4.2%

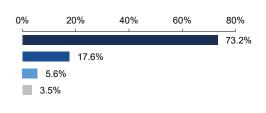
100%

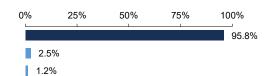
Q1 – Type of Data User Organization Represents	Persons	Percent	0%	2
MLS	96	61.9%		
Software/Product/Technology Vendor	44	28.4%		
Broker/Agent	43	27.7%		
Government/Nonprofit Organization	7	4.5%	4.5	%
Other	7	4.5%	4.5	%

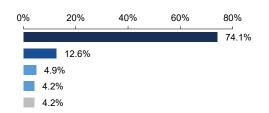
Respondents allowed to multiselect. Percentages based upon 155 total respondents.

Q2 – Organization Integrates with a Vendor/Provider	Persons	Percent
Yes	104	73.2%
I Am a Vendor/Provider	25	17.6%
No	8	5.6%
Unsure	5	3.5%
Total	142	100.0%







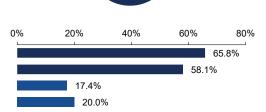


Yes 80.4% No 9.8%

Unsure 9.8%

Q5 – Organization Certified or Seeking Certification in the Future	Persons	Percent
Yes	115	80.4%
No	14	9.8%
Unsure	14	9.8%
Total	143	100%

Q5A – Certifications Held or Sought After	Persons	Percent
RESO Data Dictionary	102	65.8%
RESO Web API	90	58.1%
RESO Payloads (forthcoming)	27	17.4%
RESO UPI (when available)	31	20.0%



Respondents allowed to multiselect. Percentages based upon 155 total respondents.

Q3 - Organization Location

United States AND Canada

More Than 3 Years

Not a RESO Member

Less Than 1 Year

1 to 3 Years

Unsure

Total

Q4 - Length of RESO Membership

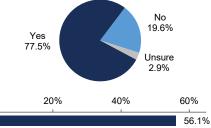
United States

Canada

Total

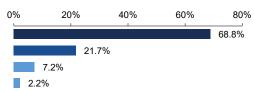
Yes	107	77 5%
		11.570
No	27	19.6%
Unsure	4	2.9%
Total	138	100.0%







Q7 – Value of UPI to Real Estate or Other Related Industries	Persons	Percent
The UPI is valuable.	95	68.8%
I don't know enough about the UPI yet to decide.	30	21.7%
The UPI has limited value.	10	7.2%
The UPI has little if any value.	3	2.2%
Total	138	100%



No 70.6%

0%

1%

0.6%

Unsure 21.3%

Yes 8.1%

3%

2.6%

2%

1.9% 1.9%

Q7A – Value of UPI to Real Estate or Other Related Industries Explained

10 Responses.

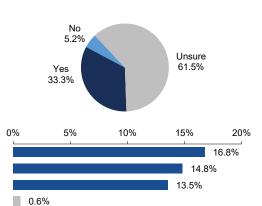
Q8 – UPI Usage	Persons	Percent
Yes	11	8.1%
No	96	70.6%
Unsure	29	21.3%
Total	136	100%

Q8A – How UPI is Used	Persons	Percent
Other	4	2.6%
Joining Data (Internal/External Integration, Linking w/ Other Property Info)	3	1.9%
Unsure	3	1.9%
Record Deduplication	2	1.3%
As a Lookup Value or Key	1	0.6%

Respondents allowed to multiselect. Percentages based upon 155 total respondents.

Q8B – Planning to Use UPI in the Future	Persons	Percent
Yes	32	33.3%
No	5	5.2%
Unsure	59	61.5%
Total	96	100%

Q8C – Future Plan for UPI Usage	Persons	Percent
Joining Data (Internal/External Integration, Linking w/ Other Property Info)	26	16.8%
Record Deduplication	23	14.8%
As a Lookup Value or Key	21	13.5%
Unsure	1	0.6%



1.3%

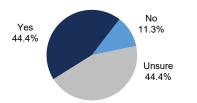
Respondents allowed to multiselect. Percentages based upon 155 total respondents.

Q8D – Timeframe for Future Planned Usage of UPI	Persons	Percent	0%	15%	30%	45%	60%
After the UPI Registry is Available	15	48.4%		I			48.4%
Less Than 1 Year	6	19.4%			19.4%		
More Than 1 Year	6	19.4%			19.4%		
Unsure	3	9.7%		9.7%			
Other	1	3.2%	3	8.2%			
Total	31	100%					

Q8E – Why No Planned Usage of UPI

2 Responses.

Q9 – Other Potential Uses for UPI?	Persons	Percent
Yes	59	44.4%
No	15	11.3%
Unsure	59	44.4%
Total	133	100%



Q9A – Specific Other Potential Uses for UPI

45 Responses.

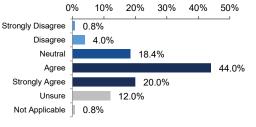
Q10 – Importance of UPI to Organization

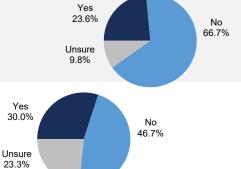
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Unsure	Not Applicable
1	5	23	55	25	15	1
0.8%	4.0%	18.4%	44.0%	20.0%	12.0%	0.8%

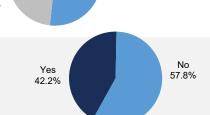
Q11 – Awareness of UPI Tools/Resources on RESO's GitHub	Persons	Percent
Yes	29	23.6%
No	82	66.7%
Unsure	12	9.8%
Total	123	100%

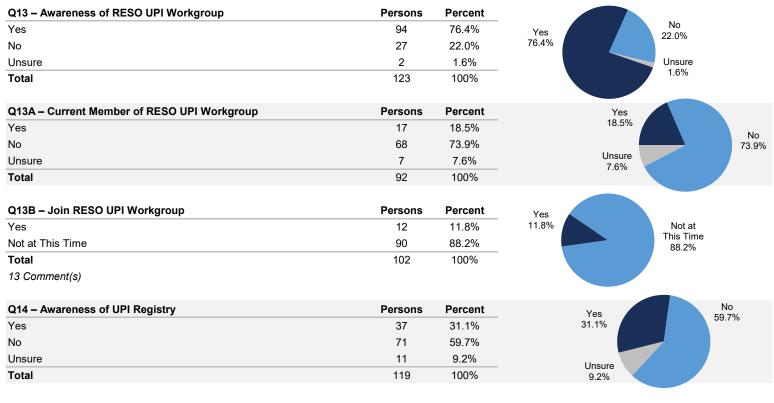
Q11A – Usage/Understanding of UPI Tools/Resources on RESO's GitHu	Persons	Percent
Yes	9	30.0%
No	14	46.7%
Unsure	7	23.3%
Total	30	100%

Q12 – Interest in Learning More / Contributing to UPI Tools in GitHub	Persons	Percent
Yes	49	42.2%
No	67	57.8%
Total	116	100%
38 Comments		









Persons

18

22

78

118

Percent

15.3%

18.6%

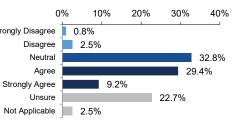
66.1%

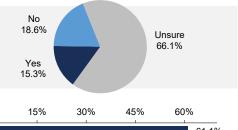
100%

Q15 – Importance of UPI Registry to Organization

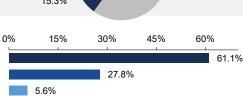
Q16 - Interested in Contributing Data to the UPI Registry

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Unsure	Not Applicable	Stro
1	3	39	35	11	27	3	
0.8%	2.5%	32.8%	29.4%	9.2%	22.7%	2.5%	





Q16A – Contribution to UPI Registry as Data Provider or Consumer	Persons	Percent
Both Provider and Consumer	11	61.1%
Consumer (i.e., your organization is interested in obtaining UPI-related data)	5	27.8%
Provider (i.e., your organization has UPI data to advertise)	1	5.6%
Unsure	1	5.6%
Total	18	100%



5.6%

Yes

No

Unsure

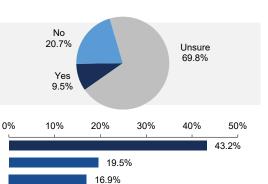
Total

Q16B – Reason for Not Contributing to UPI Registry	Persons	Percent	0%	1%	2%	3%	4%
Waiting for UPI Registry Maturation	6	3.9%				L.	3.9%
Other	6	3.9%					3.9%
Legal and/or Licensing Concerns	5	3.2%				3	.2%
Time to Implement/Integrate	5	3.2%				3	.2%

Respondents allowed to multiselect. Percentages based upon 155 total respondents.

Q17 – Interested in Only Pulling Data from UPI Registry	Persons	Percent
Yes	11	9.5%
No	24	20.7%
Unsure	81	69.8%
Total	116	100%

Q18 – Use of Distributed Ledgers (Blockchain) with UPI Registry	Persons	Percent
Not familiar enough with distributed ledgers to offer opinion	51	43.2%
No opinion	23	19.5%
Storage model (blockchain) irrelevant as long as open API	20	16.9%
We should <u>consider</u> blockchain	19	16.1%
We should <u>use</u> blockchain	5	4.2%
Total	118	100%



16.1%

4.2%

Q19 – Additional Thoughts About UPI / UPI Registry

16 Responses.

Survey Results – "Other" Responses

Answers that were unclear, unspecific or unrelated to the question asked have been removed.

Type of Data User Organization Represents	
REALTOR® Association	
Educator	
Various	
National Association	
Portal	
Important Notice	
FI	

Value of UPI to Real Estate or Other Related Industries Explained

The concept has "real" value, but it has yet to be seen, that our rendition does.

The UPI is valuable when working with multiple data sets where the property is located in multiple data sets and there are unique IDs for each data set. The UPI is beneficial for coordinating the data.

UPI is valuable, but it needs a central entity to do it correctly.

I can see how a UPI would be valuable. Especially for big vendors that are working with all different MLSs who structure their MLS numbers differently from one another. And it could help link together a property's history. But it'd be a huge undertaking to get all MLSs/vendors to begin using this identifier system.

UPI is still not as widespread. For properties to have a globally recognizable ID, it needs to be more integrated.

Only require local county parcel numbers.

This can definitely solve a pain point.

In areas and properties that are neatly defined, it codifies a path for that property. For property that is not neatly defined (e.g., lot subdivision, property yet to be defined legally), the method to code appears more subjective – at least the last time I looked into it.

Already have unique parcel numbers per community. Not sure this will take off in any fashion – what with multiple MLS numbers, lat/long coordinates, tax IDs. I fear the UPI will go nowhere.

How UPI is Used

We have it implemented and RETS available to our data consumers.

Support for the value in data feeds, but not getting it from any MLS systems yet.

Establishing the UPI for use in Canada.

Timeframe for Future Planned Usage of UPI

When MLSs provide UPI in their Web API /RETS feeds.

Why No Planned Usage of UPI

Hawaii's Tax Map Key is unambiguous. We got lucky that they figured out a logical system.

Local tax assessor's office assigns a UPI, and mistakes are common in not not assigning the UPI to an entire property when multiple deeds are involved. They also overcharge for assigning the UPI.

Survey Results – "Other" Responses

Answers that were unclear, unspecific or unrelated to the question asked have been removed.

Specific Other Potential Uses for UPI (with Number of Answers)
Insurance (9)
Mortgage (8)
Tax (6)
First Responders / Fire / 911 (5)
Governments (Local/County/State/National) (5)
Mapping / Geolocation / GIS (5)
Appraisal (4)
Delivery Services – Mail/Parcel/Food (4)
Title (4)
Lending (3)
Property Assessment / Assessor Data (3)
Public Records (3)
Unlimited/Endless Possibilities (3)
Address Verification (2)
Inspection (2)
Sales Contracts (2)
Unsure (2)
Census
Closing
Combine Data from Disparate Sources
Demographics
Disaster Relief
Exchange Data with Other Entities
Finance
Foreclosure Recordings
Internal Agent Payment Information
Land Division
Land Use
Lookup Value
Moving Services
Owners
Property History
Property Search
Property Statistics
Property Upgrades/Improvements / Green Technology
Rental/Lease Management
Retail
Supply Chain
Track Trends
Utilities

Quotable:

"It'll add efficiencies to every aspect of a transaction where the property address is currently used."

"UPI could be a game changer in my business - not sure of all the uses, but I know what we have now is basically useless."

On Distributed Ledger / Blockchain of Transactions: "Although this would be 'big data,' it would truly make history. UPI just needs to be ready to "split" properties and "join" properties without causing confusion in historical records."

Survey Results – "Other" Responses

Answers that were unclear, unspecific or unrelated to the question asked have been removed.

Reason for Not Contributing to UPI Registry

Not important to what I do.

Don't have enough information at this time.

Maybe not me, but somebody in my organization probably will be.

Other more important priorities.

Not sure what I could contribute.

The decision is not mine.

Additional Thoughts About UPI / UPI Registry

I understand the concept of the registry, but to be honest with you, unless someone with the complete public record dataset (CoreLogic, Black Knight, etc.) offers an API that we can query to get the ID, the risk of having multiple UPIs generated for the same parcel is something that crosses our mind a lot and holds us back from making changes to our ETL process to rely on such an ID. It would be nice if RESO partnered with a public records vendor to create a RESO-owned API (real-time call or download for initial loads) that the community could use for their own products. The API could be available at an additional fee (e.g., yearly flat rate). RESO would also have a dedicated staff that would make corrections or what not.

The concept of a Unique ID is far overdue to this industry. There are a number of communities, companies and groups working on the UID (UPI) concept at a much higher level than simply U.S. real estate. I think of initiatives like Placekey, and I wonder if we should be looking at a more cooperative approach rather than trying to solve this issue internally. Think broader?

I'm nervous that vendors are creating their own identifiers. One larger MLS vendor has done just that instead of getting the UPI out there and wants us to use that.

I'm excited about UPI and all of the benefits that it can provide. I see a LOT of potential.

It is one more step in making local REALTORS® irrelevant.

Looking forward to this UPI Registry!

I would love to learn more.

I have a staff member that actively participates in RESO meetings, so I do not get intimately involved.

Blockchain is a solution looking for a problem. Don't make this complex where complexity is not necessary. The UPI will be interesting for us after it's done and in wide distribution.

I would like to have more information on the UPI and the UPI Registry.

When will MLSs start sending out the UPI as part of the Data Dictionary? That is critical to our using of the value.

Because of the scale we work at, there are some challenges with sourcing the necessary data to reliably create a usable UPI for listings when not all information is asked for within an MLS, but we're getting closer to having the data we need to fill in the gaps and generate an ID.

Blockchain is increasingly becoming more vulnerable to hackers.

I would like to know more about this and how it would be used by our MLS.

Questions with an asterisk required a response.

*Q1. What type of data user does your organization represent? (Select all that apply.)

- Broker/Agent
- General Software/Product/Technology Vendor
- □ MLS
- Government/Nonprofit Organization
- □ Other _____ (Please specify.)

Q2. Does your organization integrate with a vendor/provider?

- Yes
- 🗆 No
- I Am a Vendor/Provider
- Unsure

*Q3. Where is your organization located?

- United States
- Canada
- Other International _____ (Please specify.)
- Prefer Not to Answer / Not Good at Geography

*Q4. How long have you been a RESO member?

- Less Than 1 Year
- □ 1 to 3 Years
- □ More Than 3 Years
- Unsure
- □ Not a RESO Member

*Q5. Is your organization certified by or seeking certification from RESO in the future?

- □ Yes (Go to Q5A.)
- □ No (Go to Q6.)
- Unsure (Go to Q6.)

Q5A. Which certification? (Select all that apply.)

- RESO Data Dictionary
- □ RESO Web API
- RESO Payloads (forthcoming)
- RESO UPI (when available)

*Q6. Were you aware of the Universal Property Identifier (UPI) prior to this survey?

- □ Yes (Go to Q6A.)
- □ No (Go to Q7.)
- Unsure (Go to Q7.)

Q6A. How long have you been aware of the UPI?

- Less Than 1 Year
- □ 1 Year to 3 Years
- More Than 3 Years
- □ Unsure

Questions with an asterisk required a response.

*Q7. In your opinion, how valuable is the UPI to real estate or other property-related industries?

- The UPI is valuable. (Go to Q8.)
- □ The UPI has limited value. (Go to Q7A.)
- □ The UPI has little if any value. (Go to Q7A.)
- □ I don't know enough about the UPI yet to decide. (Go to Q8.)

Q7A. Please briefly explain your answer.

_____ (Open-ended question.)

*Q8. Does your organization use the UPI?

- □ Yes (Go to Q8A.)
- □ No (Go to Q8B.)
- Unsure (Go to Q9.)

*Q8A. In which of the following ways? (Select all that apply.)

- Record Deduplication (Go to Q9.)
- Joining Data (e.g., Internal/External Integration, Linking with Other Property Info) (Go to Q9.)
- As a Lookup Value or Key (Go to Q9.)
- Unsure (Go to Q9.)
- □ Other _____ (Please specify.) (Go to Q9.)

*Q8B. Are you planning to use it?

- □ Yes (Go to Q8C.)
- □ No (Go to Q8E.)
- Unsure (Go to Q9.)

*Q8C. In which of the following ways? (Select all that apply.)

- Record Deduplication
- Joining Data (e.g., Internal/External Integration, Linking with Other Property Info)
- □ As a Lookup Value or Key
- Unsure
- □ Other _____ (Please specify.)

Q8D. How soon?

- Less Than 1 Year (Go to Q9.)
- More Than 1 Year (Go to Q9.)
- After the UPI Registry is Available (Go to Q9.)
- Unsure (Go to Q9.)
- □ Other _____ (Please specify.) (Go to Q9.)

Q8E. Why not?

_____ (Open-ended question.)

Q9. Do you see other potential uses for UPI within or beyond real estate or other property-related industries?

- □ Yes (Go to Q9A.)
- □ No (Go to Q10.)
- Unsure (Go to Q10.)

Q9A. What other uses?

_ (Open-ended question.)

Questions with an asterisk required a response.

*Q10. The UPI is important to my organization. (Please select one answer.)

- Strongly Agree
- □ Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Unsure
- Not Applicable

Q11. Are you aware of UPI tools and resources on RESO's GitHub?

- □ Yes (Go to Q11A.)
- □ No (Go to Q12.)
- Unsure (Go to Q12.)

Q11A. Have any resources helped you understand the UPI or have you otherwise used any UPI tools or resources found on RESO's GitHub?

- Yes
- 🗆 No
- Unsure

Q12. Are you interested in learning more about or contributing to the UPI tools in GitHub? If yes, please include your contact information in the comment area or email dev@reso.org.

- Yes
- 🗆 No

[Comment area will be provided for "Yes" answers.]

Q13. Are you aware of the RESO UPI Workgroup?

- □ Yes (Go to Q13A.)
- □ No (Go to Q13B.)
- Unsure (Go to Q13B.)

Q13A. Are you currently a member of the UPI Workgroup?

- □ Yes (Go to Q14.)
- No (Go to Q13B.)
- Unsure (Go to Q13B.)

Q13B. Would you like to join the UPI Workgroup? If you are a RESO member and would like to join, please include your contact information in the comment area.

- Yes
- □ Not at This Time

[Comment area will be provided for "Yes" answers.]

The UPI Registry

The next step for the UPI is developing a UPI Registry. This is an event-logging database that collects evidence of facts related to UPIs. For example, a company that sources data about property taxes or permits could produce a reference on the registry each time it registers a new fact about a UPI. This data producer wouldn't put its full data in the registry, just a reference that it has facts about that UPI. As the number of data producers creating references to UPI facts grows, the confidence scores in the UPI Registry grow.

*Q14. Are you aware of the UPI Registry?

- Yes
- 🗆 No
- Unsure

Questions with an asterisk required a response.

*Q15. The UPI Registry is important to my organization. (Please select one answer.)

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Unsure
- Not Applicable

*Q16. Are you interested in contributing data to the UPI Registry?

- □ Yes (Go to Q16A.)
- □ No (Go to Q16B.)
- Unsure (Go to Q17.)

*Q16A. Would you contribute data as a provider or consumer?

- Provider (i.e., your organization has UPI data to advertise) (Go to Q17.)
- Consumer (i.e., your organization is interested in obtaining UPI-related data) (Go to Q17.)
- Both Provider and Consumer (Go to Q17.)
- Unsure (Go to Q17.)
- □ Other _____ (Please specify.) (Go to Q17.)

*Q16B. Is there a reason why you do not want to contribute? (Select all that apply.)

- □ Legal and/or Licensing Concerns
- □ Time to Implement/Integrate
- □ Waiting for UPI Registry Maturation
- □ Other _____ (Please specify.)
- Unsure

Q17. Are you interested in only pulling data from (not contributing to) the UPI Registry?

- Yes
- 🗆 No
- Unsure

*Q18. Do you have an opinion about the use of distributed ledgers (e.g., blockchain) with the UPI Registry?

- U We should <u>use</u> distributed ledgers.
- □ We should <u>consider</u> distributed ledgers.
- □ The storage model (distributed ledgers) is irrelevant as long as we have an open API.
- □ I have no opinion on the matter.
- □ I am not familiar enough with distributed ledgers to offer an opinion.

Q19. Is there anything else you would like to say about UPI or the UPI Registry?

_____ (Open-ended question.)