

What You Need To Know About MLS Mobile in 2012

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Our Mobile World!



The world has gone mobile! Look anywhere and you will see people texting, having carefree conversations with someone on their mobile device or using that same device to access their email, check the stock prices and yes, get information on real estate! Mobile access to real estate information by both professional real estate agents and consumers is critical, but with few exceptions the real estate technology industry serving our professionals has

been slow to react to these needs. We still have MLS products that require you to use Microsoft Internet Explorer to access them and there are still MLSs that don't have great solutions for using an iPad on the MLS.

This paper will take a look at where we are today with mobile technology in our MLS industry and hopefully shed some light on where things are going. There is good news! Development of mobile products for professional and consumer access is accelerating and exciting capabilities are beginning to surface on both levels. You will hear terms like mobile web, responsive design and native apps and it is important you understand what these terms and approaches mean as you consider choices for your MLS or brokerage.

Providing great mobile access for agents and consumers is a "must have" not a "nice to have"! Our industry was slow to react to consumer demands for data, which fueled the quick rise of sites like Zillow and Trulia. In the same way our industry has been slow to react in providing strong consumer mobile products and these same 3rd party companies are ready to fill that need. Organized real estate needs to have cutting edge mobile solutions for agents, brokers and consumers. Our industry needs to control these products at all levels, not just for agents accessing the MLS and we need them now. In a few short years, mobile access will be the only access that anyone uses and we need to make sure our real estate professionals are the ones providing the very best mobile access available. Our industry has a distinct advantage to do this because we are the source of the most complete and accurate real estate data that exists anywhere. The key is providing outstanding mobile products at the professional and consumer level and then getting the word out!

Mobile Real Estate Technology – Where We Are Today

Types of Mobile Products

There are basically two types of mobile products you should be aware of. Both are defined below from an article by mobile mobile web products vs. native mobile apps.



1. Mobile Web Products

A mobile web app, or browser application, is one in which all or some parts of the software are downloaded from the web each time it is run. It can usually be accessed from all Web-capable mobile devices. (http://mobithinking.com/native-or-web-app) This is the same as accessing any program from the browser on your PC or Mac.

A subset of mobile web apps that are currently getting some buzz is known as "responsive design web apps". These apps take a phone or tablets viewing screen into consideration when they display information making the site more user friendly on a mobile device.

2. Native Mobile Apps

A native app as one that is specifically designed to run on a device's operating system and machine firmware, and typically needs to be adapted for different devices. For instance, a native application developed for the iPhone will need to run on its proprietary iOS platform, or on Symbian for many Nokia devices, and so forth.

These are apps like Angry Birds and Evernote. They are downloaded from an app store and are designed for a particular operating system.

What's the difference between Mobile Web Apps and Native Apps? Is one better than the other?

Native apps came before mobile web products. Early native apps were programs like calendars and address books. These aps appeared on our devices long before we had access to Internet connections on these same devices.

Most people seem to like the convenience of native apps because they are used to this paradigm from using other apps on their iPhone and Androids. They click an icon and away they go to that app. Mobile web applications require the user to start up their browser and then to log into the system to use the desired functionality. In the following section we will take a look at the pros and cons of web apps vs. native apps.

What are the advantages and disadvantages of Web apps?

Advantages

- They are cheap and fast to develop
- They can be accessed on most web enabled devices
- Updating and maintenance is easy
- They may provide access to full desktop functionality

As discussed in the article on native vs. mobile, posted on mobithinking, the main advantages of web apps are on the development side. Those developers polled say they are cheaper and



faster to develop and maintain and delivering updates for a web app is also more convenient because the user does not need to download an update from an app store.

Disadvantages

- The user must start a browser to use the app
- The user must go to the website with each use
- Native functionality like GPS is not available
- The interface is typically not as fast or easy to use
- Access to online functionality may be limited by PC interface/design

When a user downloads a native app it places an icon right on their device. To run the native app they just click on the icon. Mobile Web apps require putting in a URL each time or book marking the site. While this seems a simple enough process 30 percent of the publishers polled actually saw over 100 percent higher usage volume and engagement on native apps as compared to Web apps.

Additionally, while some tout Web app's ability to provide access to an online system's full functionality, this only happens if the interface has been modified to overcome the limitations found on Smartphones, iPads or Tablets. Often this access may not be a very user-friendly experience. Systems designed specifically for mouse and keyboard control can quickly frustrate users attempting to navigate them with touch screen controls.

Mobile Web in Real Estate

Mobile products for real estate professionals have typically been provided through the MLS either through their MLS vendor or a 3rd party provider. The earliest versions of these tools were mobile web products that accessed the MLS system to do searches via a simple mobile browser interface. These products were slow, and offered limited functionality. Many agents abandoned them after trying them after experiencing slow and painful load times. Today's mobile web products are improved and many provide a very usable search and display interface that is being used by agents. Most, however, still provide only basic search and display access with only a few providing access to deeper MLS functionality like editing a listing.

What are the advantages and disadvantages of native apps?

Advantages

- Improved Usability
- Speed
- Access to native functions e.g. camera support; full GPS and compass support
- Robust mapping support comparatively, mapping applications appear quicker and more responsive than mobile web mapping solutions



Apple and Android devices add new features with each release. Mobile web products are one-step removed from the operating system of these devices, which make it difficult for developers to build mobile web apps as capable and polished as native apps that can take advantage of these device enhancements. A smartphone today can talk to all sorts of other devices: TV remotes over WiFi, watches and headphones over Bluetooth, health-sensors and car stereos through dock connectors, and TVs over AirPlay. All this is currently beyond the reach of HTML web apps. Browsers may some-day offer hooks to these capabilities, but in the short term this is more easily and effectively done with native apps.

The bottom line is that native apps currently seem to be used more often than mobile web apps. In the same article on native apps vs. mobile web products posted on <u>mobithinking</u>, publishers report that native apps deliver a higher click-through rate (CTR) among the adserving publishers, although experiences can vary by company and content category.

Disadvantages

- Requires development to each specific operating system
- More expensive to develop and maintain
- Requires user to download from an app store

The most obvious disadvantage for native apps is on the development side. The user must go to an app store and download the app before they can use it. To take advantage of the device's speed and capabilities means that developers have to design the native app for each operating system, which means they can be more expensive. It is also possible that users may not have access to an online system's full functionality unless that is specifically built into the native application.

Native Apps in Real Estate

The majority of MLS mobile products have been mobile web products, i.e., those requiring access through the mobile browser. We have seen more native app adoption by brokers for their individual companies, and they are also offered by most 3rd party companies for consumers such as Realtor.com, Homes.com, Zillow, and Trulia at the consumer level. This trend is beginning to change, however, as we see more MLSs turning to native apps for both their member's professional access and the consumers in their market area who search for real estate data and many are using 3rd party providers to provide these apps rather than their MLS system provider

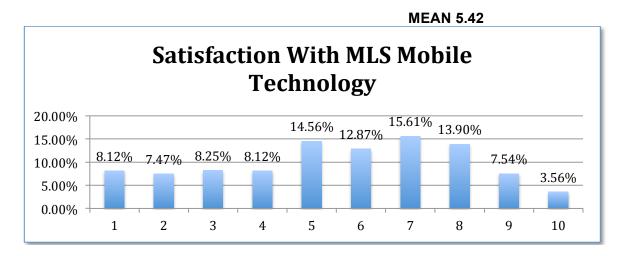


MLS Mobile Today

What Agents Want and Need

In the 2011 WAV Group MLS Technology survey almost 12,000 real estate professionals were asked about the level of satisfaction they have for the mobile products they use. We asked them the following question:

On a scale of 1 to 10, how would your rate your satisfaction with the mobile MLS access service offered by your MLS?? (1 is not satisfied and 10 is totally satisfied)



The combined rating for all MLS vendors on mobile product satisfaction was 5.42! We survey MLSs across the US every year on technology satisfaction. Ratings for their mobile products and this is one of the lowest ratings for a product feature that we have ever seen. Clearly there is room for improvement. Such a flat and varied survey response is also indicative of a fragmented and undecided audience. It also represents a significant prize for solutions that can win over this audience.

Deeper Access

In the WAV Group 2011 MLS Technology Survey, agents also made it clear that want MLS access on all devices, and they need to be able to do more than just search a listing. They need fast applications that let them load photos immediately to the MLS system. They need to be able to revise a price or status and they need applications that are easy to use.

From the thousands of comments we reviewed on our survey we repeatedly heard the following:

- Mobile access means more than searching! Agents need access to deeper MLS functions like revising a listing, adding photos, as well as accessing saved searches and contacts.
- 2. Any chosen solution has to be fast.



- 3. Any chosen solution has to be easy.
- 4. It has to work on any smart device.
- 5. We are competing with 3rd party vendors. The interface has to be excellent!

What Consumers Want

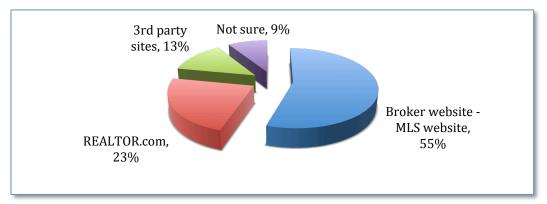
Consumers want most of the things that agents want. They want solutions that are fast, easy to use with an excellent interface. They also want solutions that are fun and keep them engaged. Think of how much the Zillow Zestimate had to do with their early success and you get the picture. It wasn't and isn't very accurate but consumers loved it! It was interesting, something that brought them back to the product over and over to either point out how much their home was worth, or to even argue about. Consumers want data! They want information beyond just the property details. And they want a fun online experience. They want neighborhood information, statistics and lifestyle searches and they want to easily share information from their phones and tablets with their friends and families.

MLS Consumer Sites Need Mobile Too

MLSs that provide consumer-facing websites (which should be all MLSs in our opinion) need to also offer consumers mobile options to connect to their data. MLS consumer websites, like broker websites compete with 3rd party sites, not each other., and they need to have tools equal or better than these 3rd party sites to be productive and competitive. Consumer mobile tools need to be seen as a "must have" not a "nice to have" by the MLS and the broker.

As shown in this graph from a study done by WAV Group (<u>SourceMLS Study</u>), consumers know that MLS and broker websites have the best and most accurate property information.

Which of these sites provide you with the most accurate, comprehensive and up to date information? (choose all that apply)



Having a strong MLS consumer website with a mobile strategy at the MLS level for agents and consumers will help to make sure that more leads are being captured in your local market and not being resold to your brokers and agents through 3rd party portals.



SMS/MMS Products

A part of the mobile technology arena that is often overlooked is the mobile messaging sector. Real estate companies are using messaging today to send flyers from yard signs and from their websites directly to phones via the text messaging component, though capabilities differ widely depending on the solution chosen. Considering how heavily text is used by our younger generations we expect this area to be expanding in the future and should be a part of any good mobile strategy. Unfortunately MLS vendors, who often supply the mobile products to brokers and agents, do not often offer these tools. MLS executives report that they believe these tools should be made available by brokers. This may be changing however, as companies like Mobile Realty Apps and Goomzee who provide mobile tools to a number of MLSs also provide messaging tools as well. At a base level, every phone on the market today has text messaging capabilities, reaching the second largest mobile audience behind voice.

MLS Vendor Mobile Landscape

The majority of the MLS vendors offer mobile web products that provide access to MLS data via the browser capabilities of the mobile device. This has the obvious advantage of being accessible to any device with browser capabilities, but not all provide the feature advantages available through "native apps".

We noted earlier, that in the 2011 WAV Group MLS Technology survey over 11,000 real estate professionals rated their MLS supplied mobile products and the combined average satisfaction rating for all vendors was 5.42 out of 10, with the highest individual vendor rating only reaching 6.64. Mobile is the lowest ranking service offered by an MLS. Common complaints include speed of access and display and limited functionality. Agents want to be able to walk through a home, take photos on their iPad and load photos immediately to the MLS and they want their access to be fast and reliable. They want maps that display quickly and refresh if they move them. They want the ability to manage their listings and to use searching features that don't bog down. Everything that an agent can do on a PC, they want to be able to do on any mobile device.

While basic search and display functionality has been available through all vendors only a few vendors offer access to functionality including listing editing and deeper MLS functionality as outlined in the chart below.

Note: The following chart is a brief overview of the major MLS vendors and the mobile solutions they currently offer. MLS vendor mobile technology changes regularly so please contact each vendor if you have questions regarding their mobile solutions as they may have new and updated solutions beyond what is shared on this chart.



Company - Product	Description	Devices	Design	Features
CoreLogic - Fusion Experience	Fusion Experience is their "full featured" mobile solution for Fusion.	Android, iPhone, iPad	Fusion Experience is technically a native application for iPad, iPhone, and Android; however, it works as a "remote desktop client" mirror of the Fusion desktop experience, and isn't optimized for a mobile device.	Full MLS system access.
CoreLogic - Matrix Mobile	Mobile web wireless solution from Tarasoft acquired by CoreLogic.	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website	Provides full functionality for an iPad. For Phones, iPhone and Android it provides search, display features.
CoreLogic - WirelessMLS	Originally the wireless solution for Innovia from CoreLogic .Now offered on other CoreLogic systems such as Fusion.	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website.	Vew MLS listings complete with photos. Search all property types. Add/edit listings. View agent roster, do quick mortgage calculations.
Discover MLS Mobile	Mobile web solution for Discover MLS	HTML5 design allows for users of any smart phone or tablet to access. Supports most web-browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website	Conduct searches, provides access to their clients and any folders that they have saved. Tracks client activity, notifies agent. One URL desktop and mobile with auto detect of device.
dynaConnecti ons - connectMLS Wireless	Mobile web solution for connectMLS optimized for smartphone screen size.	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website	Smartphone optimized web application allowing real time listing search, agent search, listing favorites folders management, contact management, and a mortgage calculator.
dynaConnecti ons Mobile Web	Mobile web solutions for connectMLS	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website	Provides near full system functionality similar experience to working with a browser on a PC/Mac/laptop.



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FBS - flexMLS Mobile	Mobile web solution used with <u>flexMLS</u> MLS system	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website	Provides access to all the MLS data, photos, documents, and open house information. Also allows for price, status and photo changes.
FBS - flexMLS Mobile for iPad	Additional mobile iPad solution for <u>flexMLS</u> .	iPad	Mobile website	Provides access to full functionality of flexmls Web system on iPad.
LPS MLS Mobile	Mobile web solution used with <u>LPS</u> Paragon MLS system	Access to real-time MLS data from any browser-enabled device.	Mobile website	Access to property, radius, hotsheet, tour, open house and member roster searches. Includes detailed property information , photos and map view. Can email property report from device. Ability to some listing edits like price, status and showing instructions.
LPS MLS iPad Moble	Mobile iPad solution for Paragon web based online system.	LPS currently supports iPad 1 and 2. iPad 3 and Android devices will be supported November 2012.	Mobile website.	Live Paragon system access to 70% of features, including Prop/Map search, reports, email reports and maintain listing data.
Promatch Mobile	Mobile web solution for Promatch complete	Supports any Internet capable phone or PDA.	Mobile website	Promatch Complete Mobile allows users with an Internet capable cell phone or PDA to search the MLS database, view photos, etc., without having to sync with their computer.
Rapattoni Wireless PDA Interface	MLS leverages browser detection to present the MLS interface optimized for the form factor and browser of the mobile user.	Any PDA with with an HTML compliant browser and JavaScript 1.0 Support and CSS	Mobile website – PDA optimized design	Provides direct mobile access to Rapattoni MLS .
Rapattoni Wireless Tablet Interface	MLS leverages browser detection to present the MLS interface optimized for the form factor and browser of the mobile	iPad 1,2,3, Tablets including Acer, Asus, Motorola, Samsung, Toshiba	Mobile website – Tablet map centric, touch based interface	Provides direct mobile access to Rapattoni MLS. Includes home page, map centric



SEI - Navica MLS <u>Mobile</u>	Mobile solution offered by Systems Engineering for Navica MLS.	Supports most web- browsing tablets and smartphones, including	Mobile website	search, market watch, listing detail and integration to attachments and 3rd party tax vendors. Can access full desktop interface. Provides live MLS listing search, viewing of
		the iPad, iPhone, and Android devices.		additional photos, map properties and e-mail clients. Generate hotsheet activity, MLS rosters and access Navica address book.
Solid Earth - Spring	Newly designed MLS web solution using "responsive design" interface. For professional and public access. In Beta, launch is predicted for late 2012.	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Screen content adapts to the device being used and its orientation from PC, Mac to smartphones.	Full MLS system access.
Stratus MLS Mobile App	Native app for Apple devices	Apple devices - iPhone - iPad - iPod Touch,	Native app	Functionality includes listing search, saved searches, favorites, prospect match, access to contacts. Full detail and photo display.
Stratus Mobile Web	Mobile web solution for Stratus MLS.	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website	Provides access to listings, public records, contacts, and open houses. Also provides instant delivery of prospect matches.

Mobile MLS News of Interest

All of our MLS vendors continually look for ways to improve their MLS products for their users. This is true for mobile products as well and while changes haven't come as fast as brokers and agents would like to see, progress is being made. Here is news from the mobile front that we think is worth noting.

Patent Lawsuits

In the past few months it has been hard to miss all the news stories about various patent lawsuits that are happening in mobile. Apple sued Samsung, Motorola sued Apple, Oracle sued



Google, and Microsoft sued Barnes & Noble. Mobile is a land grab right now, and many companies are looking to secure an advantage in the market through the use of patents.

When it comes to mobile and real estate, patent disputes have come into play as well. Smarter Agent filed three lawsuits between March 2010 and October 2011. The 25 defendants named include a who's who of companies involved in mobile & real estate – Boopsie; Classified Ventures; Hotpads; IDX, Inc.; Move, Inc. (Realtor.com); Realselect; Multifamily Technology Solutions (MyNewPlace); Primedia; Consumer Source; TrSoft (planetRE); Trulia; Zillow; ZipRealty; DoApp; Mobile Card Cast; Mobile Real Estate; Mobile Realty Apps; NMD Interactive (Streeteasy); Goomzee; Most Home Real Estate Services (Kurio); Diverse Solutions; Hillside Software; Market Leader; Tribune Interactive (ForSaleByOwner.com); and Terrostar Technology Solutions.

In conjunction with the first lawsuit, some of the companies involved asked the U.S. Patent and Trademark Office to re-examine the patents to determine whether the patents are valid in view of new information that had not been previously considered. As a result, all three of the Smarter Agent lawsuits have been stayed by the Court to allow the Patent Office to complete its review.

Although the reexamination process is not yet complete, the patent examiner has determined that all claims of the patents-in-suit may be invalid. <u>Smarter Agent</u> has an opportunity to attempt to reverse these decisions, but if the decisions are upheld, the lawsuits against all of the named parties will likely be dismissed.

Also of note, <u>Earthcomber</u> filed suit against 12 real estate companies in January 2012. However, it has been reported that <u>Earthcomber</u> quietly dismissed the suits with no settlement reached.

DoApp App For CoreLogic

<u>CoreLogic</u> recently announced they will be releasing a new native application for the iPad that is being created for them by <u>DoApp</u> under and exclusive arrangement for native phone and tablet applications. We are told that both Android and iOS MLS applications are currently in development with the first release scheduled for September or October this year.

Responsive Design Big Leap For Solid Earth

If you have been paying attention to mobile technology options you have likely heard the term "responsive design". In an article posted by, Kayla Knight on smashingmagazine.com, she explains that "Responsive Web Design" is the approach that suggests that design and development should respond to the user's behavior and environment based on screen size, platform and orientation. The practice consists of a mix of flexible grids and layouts, images and an intelligent use of CSS media queries. As the user switches from their laptop to iPad, the website should automatically switch to accommodate for resolution, image size and scripting



abilities. The goal is to build web pages that detect the visitor's screen size and orientation and change the layout accordingly.

Solid Earth has probably made the most dramatic move in the MLS industry with the development of their Spring MLS system. Spring is being developed in a "responsive design" architecture that allows it to be device independent. Solid Earth's legacy MLS system, ListItMLS, has been serving their 24 MLS customers faithfully for many years and will continue to do so for years to come. But Solid Earth came to a decision that their new MLS system could not be an upgrade but needed to be designed on a completely new paradigm that acknowledged that agents need full MLS functionality on all screens – mobile, table, PC or otherwise. It is also interesting to note that Spring will have the same interface for real estate professionals and consumers. Spring is currently in Beta and is scheduled for release in November and it will be interesting to watch its progress as it rolls out.

Could App Stores Impact MLS Mobile Strategies?

FBS is launching an app store they call "Spark" which is designed to allow 3rd party developers to more easily provide products to users of MLS systems. The idea is that developers will be able to use the API (application programming interface) provided through the Spark platform, which will allow them to offer their products to any MLS on the Spark platform. This assumes that the MLS does in fact want to make this technology available to their members. Vendors will be charged 30% of the product price for this service. The 30% proceeds will be shared by FBS and the MLS. What makes this interesting in our discussion of mobile products is the concept that MLS vendors such as FBS are actually making it easier for these services to come from 3rd party vendors rather than from the MLS vendors. Solid Earth has also announced that they will be creating an app store in the future.

Given the slowness MLS vendors have displayed in creating great mobile products, this may be an indication that while they recognize the need and importance of mobile they may be looking at others to provide this service. When you consider how low fees for MLS systems have become, this is not hard to understand. MLS vendors may very well like to see 3rd party vendors supplying these services particularly at the price points we are seeing for mobile services and especially if they can make money in the process. This raises a bigger question though on what should remain a core technology service and what is appropriate as an a la carte service.

Mobile Realty Apps Provides MLS Integration Without API

Another interesting development in the mobile MLS world is the integration to MLS systems being offered by Mobile Realty Apps. WAV Group has long been a strong supporter of more deeply integrated mobile real estate apps that would allow agents to do more than just search properties. We have encouraged MLS vendors to do more in this area. Mobile Realty Apps has



developed these capabilities on their mobile apps without the involvement of the MLS vendors. They use what I will call in layman terms, "scripting technology" to allow access to the MLS system on behalf of authorized users that allows these users to upload photos, make price changes, status changes and so on. They can even get access to an agent's saved searches for use on the mobile devices. A benefit for MLSs is that it allows them to keep their mobile technology independent of their MLS vendor. If they change MLS vendors in the future they don't have to uproot their mobile technology unless they want to.

What's the Future Look Like For MLS Mobile?

We have arrived at a point in real estate technology where users need to be free to use the browser, device and operating system of their choice. Whether is a PC or Mac, or IPad or Tablet or smartphone, successful technology applications will provide a good experience on whatever system and device your choose. Our products need to serve not just agents and brokers, but also the entire spectrum of consumers.

There are good arguments for both mobile web products and native apps but one message should be loud and clear to our industry.

Don't wait for what's coming in six or twelve months from now in mobile. Take action for your organization on mobile today!

Mobile technology is changing quickly today and you can find supporters for both mobile web applications and native apps. Make a decision for your organization based on today's options while keeping an eye on what is coming down the pike. Think of it the way you do your personal computer. You may chose something today that needs to be replaced in 3 years, but you wouldn't wait for 3 years to see what is coming. This is critical technology that all MLSs, brokers and agents need now.

All companies that rely on the Internet to provide a service or product to their customers need to have a mobile strategy in place that is seen as a regular cost of doing business. Just like companies routinely upgrade tools like PCS, copier, phones, etc., companies need to understand that this is the future and they cannot wait for what is coming but need to act now to incorporate mobile effectively into their businesses. In the same way, these same companies need to realize that mobile technology is changing so quickly along with our access devices that their budgets should have a regular line item in it for continued upgrades and enhancements. Mobile is no longer a 3rd party, "nice to have" add on, but is in fact your core technology moving forward.

MLS 3rd Party Mobile Technology Providers

This paper will not list all of the 3rd technology companies that offer mobile products to the MLS and Brokers in our industry but will highlight some that supply it as a core service for members



through the MLS in addition to offering broker mobile products. All of these companies have satisfied customers and we encourage you to take the time to learn more about each of these companies and products if you are looking to upgrade your mobile technology. We have included a contact list at the end of this paper for any of the companies we have mentioned for your reference and have added an MLS account or two using each product for your information.

Popular 3rd Party MLS Mobile Products					
Company	Background	Devices	Design	Integration	Miscellaneous
DoApp	An app development company that focuses on more than just the real estate industry.	Android, iPhone, and iPad	Native apps.	Standard MLS snd IDX integration.	In the process of building apps for CoreLogic under an exclusive agreement. Example MLS Accounts: Sandicor MLS, Tulsa MLS
Goomzee	Goomzee focuses on mobile marketing via sign riders with QR codes amd text message response. They have recently built a mobile web solution for MLSs to use as a search tool.	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	HTML 5 responsive design. Screen content adapts to the device being used and its orientation from PC, Mac to smartphones.	Standard MLS and IDX integration.	Goomzee gives agents the QR codes and text message response in addition to the mobile web search tool. Example MLS Accounts: MRED, CTMLS
<u>Kurio</u>	Kurio offers a mobile web product for MLSs, brokers and agents. They have partnered with CoreLogic in many accounts to provide their mobile solution.	Supports most web- browsing tablets and smartphones, including the iPad, iPhone, and Android devices.	Mobile website	Standard MLS and IDX integration along with integration to features like MLS rosters and accessing agent listings.	Public and real estate professionals tool. Search real estate listing information including property details, photos and maps. Email flyer feature lets agents email a branded flyer. Example MLS Accounts: Western NY Real Estate Information Service, MyFlorida MLS
MLS Touch	MLS Touch offers native apps for real estate professionals.	Compatible with IOS devices. 2 apps, iPad and all others and SmartPhones	Native App	Standard MLS and IDX integration.	Search by field, location or map. Saved searches, prospecting tools, email listings, contact agent. Uses native contact list. Example MLS Accounts: Austin MLS, Fresno MLS



Mobile Realty Apps	Mobile Realty Apps builds branded mobile solutions for Brokers and MLS. Sub-branded agent apps, mobile websites, QR codes, text and phone response solutions are also available for individual agents.	Android, iPhone, iPad, and Blackberry	Native apps.	MLS and IDX integration. Also integrated with CoreLogic Fusion and Matrix with access to saved searches, contacts, and the ability to edit listings on the go. Developing integrations with top MLS vendors: FBS Flex, Solid Earth, Rapattoni, and LPS. Also integrates with third party applications that	HomeSpotter an augmented reality home search tool. Public search tool with a range of products for individual agents. Won best of class "2012 Innovator" award at Inman Conference, July 2012. Example MLS Accounts: NorthstarMLS, NWMLS
Smarter Agent	Smarter Agent builds Aps for MLS, brokers and individual agents. Smarter Agent owns a number of patents in the mobile real estate search category.	Android, iPhone, iPad, and Blackberry	Native apps.	the MLS uses. Standard MLS and IDX integration. Currently in MLS development for MRIS. Focus primarily on broker/agent/con sumer products.	Currently developing apps for MLS customers. Level of functionality at MLS level unknown. Example MLS Account: MRIS

3rd Party Mobile - News of Interest

3rd Party Mobile Products Gaining MLS Footprint

Third party products have been used for years, in partnership with MLS vendors. More recently 3rd party mobile vendors have been gaining ground in providing mobile services to MLSs on their own. Kurio, for example, is still offered by CoreLogic for use with their MLS systems and now they are working with DoApp to create native apps for their MLS customers. But we are also seeing MLSs choose their own mobile products as well, that are not obtained through their MLS vendor. Products like Mobile Realty Apps, Goomzee and Smarter Agent are offering very attractive products for MLS use as well as Broker, Agent and Consumer use.

It will be interesting to see how aggressively MLS vendors go after this mobile space in the future or whether they will relinquish this space to the mobile technology specialists. Will it be a core service in the future? Other than the move by Solid Earth with their Spring product, we have not seen any major MLS system changes specially designed to answer the need for better mobile access.



Consider that MLSs like MRED use Goomzee, MRIS is having a MLS mobile product developed by Smarter Agent, Northstar MLS and Northwest MLS receive their mobile products from Mobile Realty Apps. All of these MLSs have mobile tools that are provided as part of their MLS offering but also choose to use 3rd party tools as well for their members for part of their mobile solution.

3rd Party Mobile Allows For Broker Differentiation

One of the keys we believe bodes well for 3rd party MLS solutions is the ability of these vendors to provide tiered services that provide a base level of service for the MLS while still allowing brokers and agents to differentiate themselves via upgraded branded mobile products. This ability is a core offering on the better 3rd party mobile products and we believe it fits well with what many MLSs are looking to do, which is leverage their buying power, without leveling the playing field. MLS vendors could certainly offer this approach as well, however, it is not a core strength of most MLS vendors to provide differentiated broker tools. While MLS vendors can certainly work with 3rd party mobile providers to achieve this end, if they wish, access via API's such as Spark may reduce the need for these developers to work directly with MLS vendors. Also, 3rd party developers like Mobile Realty Apps have found a way to provide deep integration without an API or an agreement with the MLS vendors they integrate with, so they may not see a need or benefit to partner with MLS vendors. It will be interesting to see who is controlling MLS mobile market share in the years to come.

Augmented Realty Tool Stands Out

The best-in-class 2012 "Innovator Award" at the Inman Conference in July 2012 was awarded to Minneapolis based Mobile Realty Apps One reason they won this award is because of their HomeSpotter "Augmented Realty Tool" for real estate that allows a user to look through their mobile device to see "virtual property details" directly on their screen for any listed properties. You may have seen similar applications in products like Yelp, which offered this for restaurants where you can look through a device and see daily specials, menus etc. HomeSpotter does the same thing with real estate. In the illustration below you see a user viewing properties through their iPad and property information, whatever the MLS or broker wants to display, automatically appears on the screens as they scan an area.

MLSs and brokers need to consider "cutting edge" tools like this to add to their mobile products because consumers will not only find them useful but also fun! Remember the "Zestimate". Our industry has the best real estate information available anywhere but if we don't make our mobile experiences fun and engaging we will lose viewership to other parties as we have already with 3rd party consumer sites.





Final Thoughts and Recommendations

Do It Now!

This is not a time to wait and see what will happen with mobile. If your MLS or brokerage does not already have a well thought out mobile strategy, do one now. The world is mobile! It is not becoming mobile. Your future success will be directly related to the strength of your mobile technology. This is true for the MLS, the MLS consumer site and for real estate companies.

MLSs Need To Provide Deeper Mobile Integration

Agents have told us loud and clear they want better mobile solutions that allow more than search functionality. They want the ability to modify listings, to access their saved searches, to see their contacts and to upload their photos directly from their mobile devices. If your mobile solutions don't offer this today take the time to learn about products that do. Deep integration to MLS technology should be considered a "must have" today.

Navigating Patent Issues

Understanding patents related to the technology you use is very important. You should always make sure that you are indemnified from patent infringement that could be claimed against any technology you license. Ask your mobile technology provider how they approach patents. Do they have patents of their own? Do they provide indemnification in the event of a lawsuit? Is that indemnification backed up by anything?



Understanding what patents actually cover is important as well. While the current Smarter Agent patents are being challenged, this could change on appeal. You need to understand how vendors you are looking at respond to these patent issues. One such vendor we know of takes a multi-faceted approach. They have created a patent pending technology used in their mobile product that they claim does not infringe on Smarter Agent's patents. Like most, if not all MLS vendors, they also indemnify their clients against patent infringement and they have a patent infringement defense insurance policy, which covers both their company and those that they indemnify in the event of patent litigation. Ask any vendor you are considering details on how their products are or aren't affected by existing patents and how they handle indemnification.

Mobile Web vs. Native Apps?

There is a case to be made that currently native apps provide advantages over mobile web products in terms of using the power of the specific device they are on more effectively which translates to a better user experience. Not having to go through a browser to access the MLS system or consumer site is seen by most as easier and research supports the fact that native apps are used more than mobile web apps. But, mobile web apps can allow access to full system functionality more easily and don't have to be changed with every device change. They just have to work with the device browser. Providing access however, doesn't necessarily mean a great user experience. Often, gaining access via a phone, iPad or Tablet to a system that was designed to be used with a mouse and keyboard is a very frustrating experience on a mobile device. Make sure to take the time to do "hands-on" testing with any mobile products you are considering whether they are native apps or mobile web products and test them with every device that will be used.

Mobile Technology Needs to Be Core To the MLS

Mobile technology is no longer an add-on tool. It is core technology for every MLS, every consumer site, every 3rd party site, and every Broker site. Recent announcements of app stores for MLSs offer some exciting possibilities for MLS members to have access to more and varied types of real estate technology but we urge MLSs not to consider this an easy solution when it comes to mobile technology for your members. MLSs need to choose core mobile technology solutions for their members that provide the tools their members and consumers need to be successful. Whether this technology comes from their MLS vendor or from a 3rd party is not the issue. Do your due diligence and choose a solution that meets your strategic objectives. If there are also additional options through an app store in your market, for users that want to use them, that can be a plus but don't look for app stores to replace what should be a core technology offering to your members.



Create a Clear Mobile Strategy

Every MLS and broker today should have a clear mobile strategy. Mobile access is one of the most important components of successful technology offerings today. There are numerous options available today at the MLS level, the broker level and the consumer level and many MLSs today are adding mobile products in addition to those offered by their MLS vendors. If you need help in understanding your mobile options, developing a comprehensive mobile strategy or doing a request for proposal for mobile technology contact us at mike@wavgroup.com, or call at 716-839-4628. We help MLSs and real estate companies understand and select technology that best meets their business needs, including mobile technology.

Work With a Technology Partner That Can Help On All Levels

As we have stressed, mobile is not just needed for agents accessing the MLS system. It is needed also for consumers accessing MLS consumer sites and also broker sites. Choosing a vendor that is able to handle all of your mobile needs makes more sense than selecting different vendors for each mobile need. If you can also find a vendor that can supply both MLS mobile and broker (differentiated) mobile that would be even better. This would allow the MLS to use its buying power while also offering savings to brokers that want to pay for differentiated mobile.

Let Consumers Know About Your Mobile Services

Choosing and implementing great consumer products is just the first step in a successful deployment. MLSs and Brokers need to make sure their mobile strategies include a budget line for letting consumers know you have the best mobile products available along with the best property data. We have the best data and the professionals to help consumers make informed real estate decisions but we need to get the word out.

Third Party Mobile Contact Information

Company	Location Info	Phone	Email	Website
Mobile Realty Apps	400 South 4th Street #401-09 Minneapolis, MN 54515	612-284-2828	info@mobilerealtyapps .com	Mobilerealtyapps.com
DoApp	Rochester, MN	Not listed. Contact them via web at: http://www.do apps.com/con tact.php	Not listed. Contact them via web at: http://www.doapps.co m/contact.php	Doapps.com



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Goomzee	Goomzee Corporation 4852 Kendrick Place, Suite 101 Missoula, MT 59808	406-542-9955	support@goomzee.co m	Goomzee.com
Kurio	Most Home Real Estate Services, Inc Unit 1 - 11491 Kingston Street Maple Ridge, BC Canada V2X 0Y6	888-935-8746	info@kurio.com	Kurio.com



About WAV Group

WAV Group is a leader in providing consulting services to the real estate industry and is comprised of corporate executives with a depth of expertise in both the real estate industry as well as the consumer market.

The company has conducted studies for some of the largest organizations in the industry including the National Association of REALTORS®, California Association of REALTORS® and others. It has authored numerous of its own studies discussing leading edge topics affecting brokers, MLSs and Associations including Real Estate Technology – Keys to Adoption, Brokerage Technology - An Industry Needing Backbone, the WAV Group 2011 MLS Technology Survey and many more. For more information or to register to receive report releases and newsletters please contact WAV Group.

WAV Group works with Multiple Listing Services, Associations, Title Companies, real estate firms, franchise organizations and technology vendors in the US, Canada, South America and Europe. WAV Group facilitates strategic planning sessions for organizations including MLSs, associations and technology companies, conducts operational audits for MLSs, manages technology evaluation and selection for real estate organizations (Requests For Proposals), builds and fields custom research for the real estate industry, helps business create effective channel strategies and manages executive recruitment for real estate organizations.

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