

The Impact of New Information Technologies on the Commercial Brokerage Industry

Phase II: E-Business Initiatives in the Commercial Brokerage and Listing Space^a

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^aThis is the second of three reports to be provided. Phase I estimated the size of the office and industrial brokerage sector and its profitability. Phase III will conclude with how and why different facets of the brokerage business are likely to be impacted by information technology developments.

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Abstract

This report summarizes the state of activity in the on-line commercial brokerage and listing spaces by reporting on the sites of over two dozen existing and prospective companies. The sites analyzed represent a broad array of ideas and concepts. Most efforts are focused in the listings area. Whether these firms survive as independent entities or are merged into more traditional companies, it seems clear that that the development of the World Wide Web has changed the efficiency with which that part of the brokerage process is conducted. Fewer firms are focused on conducting transactions electronically. However, there are a small number of efforts being made not only to effect transactions on the Web, but to impact the entire supply chain in real estate brokerage. The first sign of a distinct discount brokerage model also is apparent in our review. Given how important this development was for e-businesses in the stock brokerage sector, it bears close scrutiny going forward.

I. Introduction

Even with the recent collapse in the prices of Internet-based firms traded on the NASDAQ, there still are many companies doing business in the commercial brokerage and listing spaces. This phase of our research reports on 25 of those firms. Our sample does not constitute the universe of firms in these spaces, but it does include the vast majority of companies tracked by the major Wall Street investment houses.¹

These firms represent a broad array of ideas and concepts. A number of firms clearly hope to be able to dominate specialized markets. For example, PropertyByNet.com focuses its operations geographically on the Southern California market. Others such as Storetrax.com have concentrated their efforts on a single property type – retail, in its case. Yet another firm, Offices2Share.com has developed its business around a leasing niche – office sharing, an area that generally was not brokered heretofore.

At the other end of the spectrum are very ambitious enterprises that could disintermediate commercial brokers to some extent – if the new businesses are successful, of course. These include NetStruxr.com, an effort supported by some in the corporate real estate community that has the potential to affect the balance of power between commercial brokers and their corporate clients. Another example is Zethus, the most widely discussed company that apparently was intent on providing a web-based transactions platform. Its recent demise is a clear indication that it will be very difficult (and expensive) to fundamentally change the way the commercial

¹ It is noteworthy that we focus on commercial, not residential, applications in the brokerage and listing spaces. While many Wall Street firms cover ‘e-real estate companies’, an excellent source for the interested reader is “The E-Real Estate Yellow Pages” published by the Banc of America Securities Montgomery Division. The latest edition is dated March 5, 2001. In addition to brokerage and listing-focused firms, that report includes lists of residential (primarily owner-occupied housing) firms, financial firms, intranet providers, portals, procurement specialists, and the like.

brokerage business operates. That said, there are other companies such as Peracon that also hope to use new information technology to standardize the sales transaction process and, thereby, change the very nature of the commercial brokerage business.

What follows in the next section is a series of 1-2 page summaries of each firm. The synopses include a description of what the company presently does and hopes to do. In addition, the URL for the firm is listed and, if clicked upon, will take the interested reader directly to the firm's home page if further information is desired. For those not inclined to read the individual firm reports, a one-page matrix listing each site and seven key characteristics also is included. The traits include the following: (1) whether the site currently is on-line; (2) whether the site has a listing or transactions focus; (3) an estimate of the extent of listings where applicable; (4) information on the costs for listings and for accessing the site information; (5) the target audience of the site; (6) the site's geographic focus; and (7) whether the site focuses on a single or multiple property types.

[Insert Matrix here.]

A quick glance at the matrix shows that two of our covered firms already have disappeared from the Web. Thus, failure (or demise via acquisition) has hit the commercial real estate and listings sector, and we suspect its pace will only increase. It also is evident from this page that most firms have a listings focus, with only a handful of sites trying to effect transactions electronically. The number of listings varies enormously among the sites covered. Because economies of scale are likely to be critical to profitability, we suspect that those sites with relatively few listings will have to increase them quickly and markedly, or failure is likely.

Revenue models vary substantially across the firms as the Listing Costs and Access Costs

columns show. For most, but not all, listings-focused operations, listings are free. This is the case for accessing site information in some cases, but various fixed and variable fee structures exist for accessing other sites. Those sites with no listing or accessing fees rely on advertising for revenue generation or are being supported by venture investors of some type. Given the failure of the advertising model as a sole or primary revenue source in other industry sectors, we strongly suspect that pricing for access will become widespread here.²

That tenants, brokers, and landlords are targeted by the various sites is indicative of the wide array of operations and strategies being employed in commercial real estate (see column six of the matrix). The next column in the matrix also demonstrates that most of the listing and transactions players in e-space have a national focus. This probably is because economies of scale are important in the long run. Size and scope also may make it easier to attract capital from major industry players and venture capitalists. Finally, the office sector most frequently is targeted as a source of business, but there are a handful of sites specializing in another property type or dealings with the full array of commercial properties (see the final column of the matrix).

Before getting to the site descriptions themselves, it is useful to keep in mind a key question as one reads the individual summaries. That question is to what extent new developments in information technology will fundamentally change the way that commercial brokerages do business versus to what extent will this new technology simply serve as another distribution channel for a commercial brokerage operating under what is essentially the same

² While our focus is on commercial real estate listing and transaction sites, it is instructive to compare our sample in this respect to Microsoft's MSN HomeAdvisor on the homeowner side of the market. MSN HomeAdvisor charges nothing for listing or access, and does not appear to have plans to do so in the near future. However, this operation clearly is a special case. Its listing volume truly is enormous and its brand with web users is valuable. Microsoft may not even need advertising revenues for its MSN HomeAdvisor operation to make sense economically. It may be able to cross sell enough services to make a profit. This is virtually impossible for any commercial real estate

business model as before.

The number of listing companies out there, both large and small in scale, provides much food for thought in this regard. The presence of these firms leaves no doubt that the Web will be an important distribution channel and conduit of information for commercial real estate brokerages. However, whether the CoStar's of the world ultimately survive as independent entities is not something we can easily predict, and more properly is a focus of Phase III research. Regardless of the answer, it seems very likely that the development of firms such as CoStar will put pressure on fees charged by brokerages. The increased transparency provided by the Web also should increase the division of labor within and across firms. That is, the development of specialists within commercial brokerages seems likely to accelerate.

More broadly, the recent bankruptcy filing of Zethus casts doubt on the near-term potential for an e-firm to fundamentally change the business model of traditional commercial brokerages. However, the continued existence of Netstruxr.com, Peracon.com, and Tenantwise.com indicates that the potential for significant disintermediation still exists. The corporate real estate financial backing for Netstruxr.com clearly is intended to reduce brokerage costs for corporate tenants. Peracon.com is even more ambitious in the sense that its goals potentially include impacting the entire supply chain for real estate. And, Tenantwise.com, while geographically focused on the Manhattan market, brings to the fore the concept of a discount brokerage operation.

The discount model is particularly interesting because of its role in the history of stock brokerage and the development of web-based trading in stocks. Following the deregulation of

operation. Hence, pricing of access almost certainly is going to become an important issue in the near future for commercial listing operations.

trading commissions decades ago, but well before the development of true Internet firms such as E*Trade, discount stock brokerage was popularized by Charles Schwab. Schwab attracted customers who did not wish to pay for all the services beyond trading execution that were provided by the more traditional stock brokerages. Recent research suggests that the clients of the discount brokers such as Charles Schwab were the initial customer base of the true e-firms such as E*Trade in this sector.³ Those who were most accustomed to fewer services and were more hands-on in terms of stock transactions were the most amenable to electronically executing trades themselves. There also is some evidence that those who had done the best in terms of stock picking and return performance were more likely to be willing to trade through accounts at the new e-firms. They probably thought that they were smart, not lucky, so that they did not need even the limited array of services offered by the discount stock brokerages.

While the recent downturn in the broader stock market and the debacle in the technology stocks almost certainly will show that luck, not skill, was the driving force behind the performance of these traders, the point about the development of a discount stock brokerage model being an important facilitator of individual e-trading still holds. Its relevance for us is that for a Zethus (or Peracon?) to be successful, it may be important for a successful discount model to have been developed. Thus, if a Tenantwise.com can be successful, it may facilitate the move of clients to a more purely Internet-based brokerage operation. Indeed, an important issue to be considered in the final phase of our research is whether a discount brokerage model is a necessary condition for the successful implementation of e-brokerage.

This discussion and recent events such as the proposed merger of LoopNet and

³ See Brad M. Barber and Terrance Odean, "Online Investors: Do the Slow Die First", Working Paper, University of California at Davis, October 2000, for the details.

PropertyFirst indicate that the present time is an early stage in the evolution of this sector and its technologies. There certainly will be more twists and turns along the way that will end up influencing the development of commercial brokerage. Hence, constant attention and analysis are warranted. That said, the current state of activity and ideas in the commercial brokerage and listing spaces on-line can be gleaned from the site summaries that follow below.

II. Company Summaries

BigBidder.com

<http://www.bigbidder.com/>

BigBidder.com is an auction site that has not yet launched. The site is being developed by LFC Internet Technologies, one of the LFC Group of Companies. LFC is a real estate firm specializing in marketing, brokerage, advertising, financing and escrow services that has been involved in a variety of high profile projects nationally over the last twenty years, including complex auctions.

The BigBidder site will facilitate commercial, residential and land sales promoted nationally and internationally by LFC. The site's proposed launch date is not known.

BizTrader.com

<http://www.biztrader.com/>

BizTrader.com is a site aimed at serving a classified advertising function for commercial real estate and the sale of small businesses. It provides a database of commercial properties for sale and lease along with listings of small businesses for sale. The site charges brokers or individual business people \$39 monthly for a single listing or \$49.95 per month for unlimited

postings. Its database including domestic listings is very small. Recently, there were four properties listed in the site's home state of Arizona, five in New York and forty-seven in California. The small business database appears to be larger.

It is fairly easy to search the listings database, although the state selection is the most detailed geographic category available. Searching by property type permits the use of finer selection criteria in that 19 property type categories are available. Once listings are selected, data provided include the ask price, square footage, location without specific address, contact information and a short description of the property provided by the broker/individual who posted the listing. No pictures are provided for any of the properties.

In order to become a convincing venue for sourcing new business, the site will need to expand its database, search criteria, and information available on listed properties. Its lack of focus in covering both real estate and unrelated small business sales also seems problematic. Because the site is privately held it is difficult to evaluate its profitability.

Blacksguide.com

<http://www.blacksguide.com/>

Blacksguide.com is a leasing-oriented website maintained by the long-time publishers of a series of hard copy commercial real estate guides marketed primarily to brokers and other real estate professionals. The firm maintains a database of over 64,000 properties and 3,000 services companies in 19 major markets nationwide. It publishes regional guides available by subscription on a quarterly, semi-annual or annual basis. The internet site provides information on the firm's broader array of products and services, as well as access to a database on available commercial space in the covered market areas. Searching the database online is free (the firm's

hard cover publications are not), as are listing properties online and in the regional publications.

The site itself is easy to use, but not particularly notable given the lack of available detail. Most listings do not include photos or floor plans, and those that do have photos do not provide much additional information. The site is comprised of property listings and information on the local real estate companies active in each market. The site provides a useful way to gain an overview of the market, the submarkets and the players within them, as well as a means to locate vacant space and obtain contact information on the relevant leasing broker. This site has an advantage in that it is commonly known in the brokerage community, as are the firm's guides. This site could also be useful to tenants seeking to gain some knowledge of a market prior to contacting a leasing broker.

It is not yet clear whether making this information available online will cannibalize sales of the firm's hard copy publications or whether they will be complementary to one another. By promoting use of its underlying products and providing enhanced services to its current users, the firm is most likely using its website to maintain and advance its market position in an electronic environment. Because it is not known whether or not the costs of developing and maintaining the website are met by increased revenue from subscriptions to or advertising in its publications, it is difficult to evaluate the site's profitability.

Cityfeet.com
<http://cityfeet.com/>

Cityfeet.com is a listings database targeted to leasing small office, retail and industrial space to local businesses. The site has extensive listings in its covered metropolitan areas of New York, Los Angeles, San Francisco, Atlanta and Washington, D.C. Searching Cityfeet

listings is free, while brokers and others pay a monthly listing fee.

The site is accessible and user-friendly. One begins a search by selecting a city followed by property type, size range and location. Results are displayed by submarket and can then be sorted following other criteria, including square footage, monthly rent, annual rent per square foot, and date available.

Each listing has an accompanying “listing details” page which includes pertinent information about the property. This includes contact information, rent, date available, ideal use, description of the building and whether or not the site has high speed internet access. The Cityfeet site has the capability of posting interior and exterior building pictures and floor plans, although they are not included in most listings.

The Cityfeet website also contains a number of listing-related features and services. The “Cityfeet agent” feature permits users to receive emails when new listings appear that meet criteria specified by the user. The site also includes an online industry glossary designed to help non-real estate users, presumably small business people, to access general information about real estate terms. Postings are also included on goods and services firms in a variety of categories, including computer resource, financial services, human resources, etc.

The site’s business model is based on revenue from the broker or property owner placing listings, as well as fees generated by banner advertising. The company recently completed a second round of venture capital funding in February 2001. The site’s reported future plans include expansion to ten additional cities, incorporating panoramic videos of the sites, adding chat rooms with industry experts, providing greater specialization within the “types of use” categories, adding a reverse auction function that would permit prospective tenants to receive

bids from landlords or brokers, and incorporating the capability to process and complete transactions online. Thus, this primarily listings-focused operation plans to expand into the transactions arena.

One final future goal is to add a broker area to the site's functionality. Currently, the site concentrates on sourcing new business for their customers, rather than themselves. Pitching and winning new business is not handled by the site, as prospective tenants must initiate communication with the contacts listed on the listed properties in which they are interested.

CommercialSpaceOnline.com
<http://commercialspaceonline.com/>

CommercialSpaceOnline.com is a listings site for sales and leasing. Its capabilities include posting properties throughout the United States and Canada. The site is a division of Computer Futures Corporation, an Indiana-based firm that specializes in internet development, hosting and online training. Searching the listings is free, as are listings that brokers and owners post on the site themselves. The site charges for listings that it "creates" by scanning photos and the like. The site will also submit posted listings to twelve major search engines.

Searching the listings is simple, although the volume of listings is small. One begins by selecting the United States or Canada, then sale or lease. The site will then display the number of listings meeting the criteria in each state. One then selects a state and the site lists all of the properties in that state in alphabetical order by municipality. The user then clicks on a particular property to see more detail. During a recent site visit there were fewer than 300 properties listed for sale and less than 200 listed for lease in the entire United States. While many of the listings

include photos, other useful information such as contact phone numbers often is missing. Typos are also apparent throughout the site. Recent attempts to view the Canadian properties posted also resulted in error messages.

CoStarGroup.com
<http://www.costargroup.com/>

CoStarGroup.com grew out of Realty Information Group, a Bethesda-based commercial real estate information service started in the 1980's. CoStar now has the largest and most detailed database of office and industrial properties in the world and claims to have collected and verified data on more than 800,000 properties in over 50 markets across the country. CoStar estimates that it was utilized in more than 60 percent of the sales and leasing transactions that occurred last year.

Aimed at helping with those transactions, CoStar's services include current sales listings on nearly 60,000 buildings offered for a total of more than \$70 billion. Much detail is available on-line for its listings, including detailed floor plans and IPIX virtual tours. CoStar has the largest commercial real estate image library in the nation containing nearly one million high-resolution digital images. The firm maintains information on more than 565,000 confirmed sales comparables and incorporates cluster mapping capability and portfolio listings into its site.

Leasing information is available on what appears to be the full inventory of office and industrial space in the markets covered. CoStar's tenant database includes contacts, lease expirations, industry information, number of employees and square footage requirements, designed to help brokers seeking new business. CoStar maintains market trend data for the markets it covers by aggregating information on all of the properties by general location for

office space, and property type for industrial space.

How frequently CoStar can accurately update its detailed building and tenant information to serve the needs of the brokerage community well may determine the future of the company. If CoStar's services are to be successful in replacing some brokerage staff, users need to be very confident of CoStar's information. Otherwise, it cannot be employed in developing bid and ask prices or be of help in other brokerage activities.

CoStar is unique among online e-real estate firms in that it is publicly held. It is presently generating revenues of more than \$58 million annually. While *pro forma* net losses are declining they still exceeded \$6 million for the fourth quarter 2000. The ability of the firm to exist successfully as a stand-alone entity probably will be decided in the relatively near future. No matter what the outcome, CoStar has highlighted how the internet can be utilized to provide information that can be useful to a wide range of brokerage activities.

LookingForSpace.com
<http://lookingforspace.com/>

LookingForSpace.com is a lease-oriented listings website that lists nearly 4,700 spaces. The site reports itself as tracking more than 3,000 buildings and listing nearly 2,300 agents. Initially, LookingForSpace.com served the metropolitan New York area, but has since grown to include the Washington, D.C. and Chicago areas. Office space is the primary type of space listed, with some smaller retail space offered as well. Plans are underway to expand the site to include an "instant office" module. While reference is made to industrial properties, no listings are available presently.

Posting listings and searching through them is free. All revenue for the site is derived

from advertising, with rates ranging from \$125 monthly for a small “Agent of the Month” ad to \$1,000 monthly for “Featured Agency” and \$200-\$300 weekly for featured space advertising.

Searching through the available listings begins at the site’s home page by selecting a state, property type and entering a general square footage requirement from a rolodex card image at the top right hand corner of the page. The home page which also incorporates other design elements from the rolodex card theme displays photos and data on featured properties, as well as access to listings of featured agents, agencies and resource providers. The search yields a property list with addresses and general information that can be clicked on to learn more about each property. The property detail generally includes photos and more information about the building, its history and leasing data. The detailed pages also permit users to print the property data or to view a site map with zoom and distance capabilities. While many of the Manhattan listings exclude building photos, this probably reflects brokers’ decisions rather than a shortcoming of the site.

The resources section provides brief descriptions and links to instant office, legal architecture, furniture, project management and technology providers. The services of featured providers are listed first, more prominently and separately from the others. The site has attracted advertising from some prominent firms, including Newmark, Cushman & Wakefield and Insignia. Similarly, featured agents have photos and bios prominently displayed. Searching the non-featured brokers can only be accomplished alphabetically or by looking up a specific name. The site is private, held principally by Neal Lerner, the site’s president and a New York broker with experience as a tenant rep. While LookingForSpace appears to be growing and generating some advertising revenue, it is difficult to evaluate the long-term potential for the site. If it is

unable to sustain substantial listing and hit volume, it seems vulnerable to losses in advertising revenue.

LoopNet.com

<http://www.loopnet.com>

LoopNet.com is one of the best-financed and best-known commercial e-real estate sites, focusing on a full spectrum of services offered nationally, including listing and facilitating sales and leases for brokers, owners, prospective buyers and prospective tenants. It recently announced plans to merge with PropertyFirst, with the combined company operating under the LoopNet name.

The site's database includes more than 121,000 listings, including \$80 billion of properties for sale and over 1.35 billion square feet of properties for lease. The listings are derived from more than 150 real estate organizations nationally that list through LoopNet. The leasing database includes office, industrial and retail properties, while the sales portion of the site includes a wider variety of commercial property types. More than 166,000 users have registered on the site to conduct searches of LoopNet's database.

Searching the listings is free once registered at the site, as is posting a basic listing. Revenues are derived from advertising and from fees generated by enhancing the basic listings. Searching the listings is an easy process, once the somewhat cumbersome registration process is complete. To search the leasing database, one enters some preliminary information on property-type, size requirements, cost and geographic data. A posting date range may also be utilized to assure that listings are current. A similar process is followed to access the sales listings.

LoopNet also offers a variety of other services for brokers, investors, owners, and tenants.

Included in these services are website development, customized listing services and a variety of financial services focused on mortgage procurement. The site's LoopLender division provides information on loan packages available from a number of different lenders, at no charge to the searcher and a small charge to the lender if the loan is made. The site claims that this service saves time and money through an accelerated loan review process and the removal of loan application fees. In addition, the site includes a News Center posting recent industry news and other stories. A Business Services Center is also offered online that provides links to contractors.

LoopNet is privately held and funded through a variety of venture capital and industry funders as well as other private investment pools. Consequently, it is difficult to determine the site's precise financial situation. Clearly, LoopNet's single biggest advantage is the extensive listings that the site holds. Its recently announced merger with PropertyFirst probably is an indication of how difficult it is to go it alone in the current market and how important scale is.

MovePoint.com
<http://www.movepoint.com>

MovePoint.com, with the slogan "Business Space Solutions for Companies on the Move," is in the process of implementing plans to provide a full-spectrum of space solutions for corporate clients including planning for, acquiring, building-out, moving into, and managing space. The site began by providing commercial property tenants a vendor marketplace for goods and services. The site is now expanding its services to include property leasing, design build-out and move-in services. It also plans to include sales in the future.

The site is not fully operational, but is available for demonstrations through the high tech public relations firm, Avinon, Inc. The apparent revenue model is of a service that is free for

tenants (with some exceptions) and of revenues coming primarily from space/service providers who must pay a contact fee of \$25-100 per tenant introduction and a 1.5 percent commission on signed leases (and possibly for other finalized service agreements).

While the site correctly points out that real estate related costs are second only to labor costs in most firms' expenses, e-business plans are viewed with skepticism today. Hence, the actual rollout of the site cannot be taken as certain.

netStruxr.com
<http://www.netstruxr.com>

NetStruxr.com is a new site developed with the assistance of a consortium consisting of Prudential, IBM, and Bank of America. With the slogan, "The first e-business solution designed specifically for the Corporate Real Estate enterprise," NetStruxr is a leasing website that is driven by the needs and prospective needs of corporate tenants, with the aim of impacting the entire real estate supply chain. These firms are now stakeholders in the company and have pledged to run at least \$3 billion in annual leasing transactions through the site.

NetStruxr either facilitates or plans to facilitate 3 product lines -- SPACEdirect, CORPORATEDirect, and SERVICEdirect. SPACEdirect, the leasing service, is the primary product available at this time and incorporates a different kind of business model from other leasing sites or traditional brokers. In this "buyer-centric" approach, prospective tenants post their space needs online, field responses from landlords, and negotiate online. In exchange for this matching and facilitating role, the site charges a 0.5% fee to landlords for leases transacted in this manner. Theoretically, many tenants and landlords will need a broker to participate in this interaction. Sophisticated and well-staffed tenants, including many high volume multinational

corporations, and some highly knowledgeable landlords however, could use this process to disintermediate brokers from some lease transactions and diminish their role in others. If the three consortium members are able to reduce their brokerage fees by even 1% on the \$3 billion in annual leases being run through the site, the savings to them and loss to brokers will be \$30 million per year.

NetStruxr describes CORPORATEDirect as the “first buyer-to-buyer internal marketplace providing space sub-lets, sharing, acquisition and disposition directly to other CREs.”

SERVICEDirect is described as the “first e-commerce services platform that will seamlessly integrate buyers, customers, suppliers, and partners across the entire CRE program supply chain.”

The site itself is well-designed albeit a little jargon-laden to the layman. Given the sophistication of the site’s potential users, however, this may not prove an obstacle.

The recent agreement with the consortium that beta-tested the site provides the three corporations with an undisclosed stake in NetStruxr, and should provide the site with \$15 million in annual revenue. It is not clear if the site is incurring costs to bring landlords into the process, but it is promoting the site’s potential efficiencies to them. Given the substantial and proactive nature of the business involved, it is probably worthwhile for them to participate, and they are not charged a fee unless a lease is signed.

There are, however, some potential concerns with this model. Real estate is the most local of all industries, and it might prove difficult for corporate real estate departments to know the marketplace as well as others operating in it. Tenant rep brokers have traditionally served an important role in equalizing this knowledge differential. While real estate markets are becoming more transparent and it is increasingly likely that companies will develop relationships with

landlords operating across various markets, poorly negotiated leases can cost a corporation far more than is saved by lowering or eliminating brokerage commissions. Still, corporations will need to carefully evaluate the costs and benefits of how netStruxr is utilized.

OfficeDirectory.com
<http://www.officedirectory.com>

OfficeDirectory.com is a site specializing in listing office-leasing opportunities nationally. The site provides free searches to potential tenants and free listings to owners and brokers. OfficeDirectory.com also provides a variety of online tools to assist brokers, including the ability to track a portfolio or create a building watchlist. The site's revenues are derived exclusively from advertising.

The listings included in the site are extensive. To search, one selects a state then a metro area or specific town name. Searching the listings can be a little more cumbersome than in other sites if the user is looking for properties in a specific part of an MSA. Alternately, the search through an MSA can be narrowed by specific building address or name. Some other sites will permit a search by county, which accommodates this kind of need in a more straightforward manner. When the searches are complete, little information beyond an address is available unless one goes through a registration process. Even then, the listings are not as detailed as those available on other sites. We also experienced some technical difficulties during our searches, although these problems certainly can be remedied. The site sometimes utilizes PropertyFirst's Universal Listing System, by transferring searches over to the PropertyFirst site at some search points. Finally, the site also includes other a products and services section that includes promotional links to contractors' lists and other resources.

It is difficult to evaluate the long-term prospects for this site, as there are numerous other competitors, and it is increasingly clear that scale is needed for profitability. An expanded user base seems needed to attract sufficient advertising revenue to operate profitably.

OfficeFinder.com
<http://www.officefinder.com>

OfficeFinder.com, with the motto “The Information Source for Users of Office Space,” provides an online information and referral network to users seeking office space. Firms associated with this site include C.B. Richard Ellis, Grubb and Ellis, and The Staubach Company. The site includes a variety of tools and information to assist users in understanding the market in their target area; in determining how much space they need based on number of executives and other employees; in explaining how space is measured according to the Building Owners and Managers Guidelines; and in providing a checklist to determine needs and to determine the best deal. Use of the site is free, although ultimately users who actually proceed with leasing or buying space as a result of using this site pay a brokerage fee.

The site is easy to use, but only partially takes advantage of the capabilities of the internet. Users put their needs onto a form, including contact information, market, square footage requirements and type of space and then press a “submit request” button. Rather than conducting an instant listings search of an online database, the user is contacted via phone or email “usually within 24 hours” by a member of the broker network with search results. While personal contact undoubtedly helps brokers to close deals, the delay incorporated into the process here is different from the ‘immediate information’ strategy pursued on other listing sites. Some users of the internet also may prefer to do their own initial information gathering directly rather

than through a contact.

The business model of the site is to serve the member brokers. It appears that OfficeFinder.com concentrates as much on pitching and winning new business as it does on sourcing new business. The industry experts associated with the site work for real estate brokerage firms around the world and have decided to become members of the site for the purpose of obtaining new leads and referrals. In one sense the site is not only sourcing new business, but also attempting to pitch and win the business on the first contact with the user. Users of the site are presented with a very respectable interface for virtually all of the information they could want about office space, except information on space currently available. Whether this will negatively impact the long-term success of the OfficeFinder business model is not yet clear. At a minimum, the site represents an interesting initial foray of bricks and mortar brokerage firms trying to integrate the internet into their operations.

Offices2Share.com
<http://www.offices2share.com>

Offices2Share.com is a listings website specializing in short-term sublets of office space. The site currently lists three categories of available space -- office, medical and executive suites available as short-term shares and sublets. Most of the available space is small, but the site has also begun to list larger spaces available for sublet. In addition, the site has initiated a Super Short-Term Space service which can be used to lease space on an hourly, daily or weekly rate. The site charges listing fees to post available space on the site. Searching the listings is free.

The site was originally developed to meet the needs of small firms with limited budgets who were operating in highly space-constrained office markets. By matching these tenants'

needs with those of firms with temporary excess space, the site began to provide a sharing and sublet service. The site is further expanding its market niche by facilitating its super short term service, aimed at meeting the local needs of out-of-town business people. [This market probably is less valuable, as many firms will not wish to list space on a super short term basis due to the cost in time and money of organizing the requisite logistics.]

While using this site generally involves establishing a leasing relationship without generating a commission, in the case of subleasing the commissions involved do not constitute a major source of commercial brokerage revenue. In addition, some brokers have turned to the site as a useful means of finding tenants for clients seeking to sublet their own excess space. Office sharing has not traditionally been a brokered relationship, so the arrangements facilitated through this site impact brokers only to the extent that tenants subletting shared space might otherwise seek to occupy brokered space. Many of the comments from users posted on the site declare the site to be vastly superior to taking out a classified ad. Hence, if the site is successful in the long run, one can speculate that newspapers might experience the greatest long-term revenue impact from the site.

While this site appears to have developed a market niche, it is hard to evaluate its long-term profitability. The site has benefited from venture capital from Internet.com, although the precise amount invested is not known.

Peracon

<http://www.peracon.com>

Peracon is a new site targeted primarily to serve seller's agents with an interesting, but untested business model designed to standardize the sales transaction process. Launched in

December 2000, Peracon refers to itself as “the first Internet-based commercial real estate platform to provide buyers, sellers and their agents with full-service, end-to-end transaction capabilities.” It offers an array of support services aimed at adding value to the sales transaction process, including the prequalification of all of the parties involved.

Peracon offers fee-based services in two standardized packages. The “ASP Model” is the basic service package permitting seller’s agents to offer exclusively listed properties online for a fee that “approximates the amount an intermediary currently spends on the production of an offering document.” The broker also provides Peracon with the financial and marketing content needed to post the property online. Peracon, in turn, provides the maps, demographic data, and market information. According to the site, the seller’s agent receives a package of products and services that includes a downloadable offering memorandum, a fully interactive online offering memorandum, internet distribution, and an IPIX virtual tour. The company also provides due diligence materials and numerous contracts and reports (e.g., insurance and engineering; environmental reports require an additional fee). Tracking reports detailing buyer perusal and interest in the property are also provided, as is access to Peracon’s list of qualified buyers.

The ‘ASP Plus’ model requires an additional fee for which Peracon abstracts the leases, conducts valuation analysis, prepares a financial forecast, performs market and economic research, and oversees and manages due diligence queries.

Use of the site is free to prospective buyers and their agents, but buyers must go through a qualification process to fully access the site. While this prequalification aims to speed the transaction process by eliminating unexpected problems in the negotiation process, this step may also discourage mildly interested buyers from learning more about an available property. It

remains to be seen if this added step will discourage busy and qualified buyers.

While a very ambitious site and undertaking, a number of questions remain as to whether or not this business model will ultimately succeed. Peracon must prove itself trustworthy to parties used to sometimes having data and analysis presented in a light most favorable to their particular position. Similarly, prospective clients may not wish to standardize their processes in the way Peracon requires.

Initial funding has been received from the BV Group, a merchant bank with financial investments in venture and growth capital. While the site has been up and running only since December 2000, it had just six properties listed after a couple of months. It is extremely difficult to effectively market and promote such a small number of properties on a national basis. In addition, it took the site more time than its press materials predicted to close its first sale.

PropertyByNet.com
<http://propertybynet.com>

PropertyByNet.com is a relatively early entrant in the listings market that offers a range of services, while targeting the Southern California market. The site's business model is based on membership fees, wherein member agents and brokers pay a \$240 annual fee to access the full range of listings and utilize all of the other site services. Some company revenues are also derived from advertising.

Many of the site's services seem geared to the needs of smaller and independent brokerage operations. The site offers an extensive set of links to other commercial and investment real estate sites serving Southern California. The site also offers access to a host of real estate-related services including accounting, insurance, repair and maintenance services and

technology services. The site also lists networking and professional training opportunities for brokers and maintains calendars of real estate events by county. Some free software is also offered on the site, including loan payment and amortization software, while proprietary software that includes analysis and presentation capabilities is available for a fee. Such services as reduced-cost web sites are also offered.

This site's geographic focus, low fee structure and targeted range of services set it apart from other efforts. With no venture capital involved, the site probably does not have to meet difficult revenue requirements. It is doubtful, however, that this site will have much impact on the business practices of the national brokerage community. It also remains uncertain whether it can achieve sufficient scale to become profitable in the longer run.

PropertyFirst.com

<http://www.propertyfirst.com>

PropertyFirst.com is one of the most sophisticated commercial real estate web sites and also represents one of the most substantial investments of this sort on the internet. The firm recently announced plans to merge with LoopNet, with the merged entity integrating technologies in the near future and continuing operations under the LoopNet name.

PropertyFirst reports having listed \$70 billion in properties since September 1999. Like many sites, PropertyFirst permits users to conduct free searches of its listings for sale and lease. Fees are charged to owners and brokers for listings and for the use of the site's other services. PropertyFirst distinguishes itself from other sites through a series of strategic alliances, partnerships and its range of services, one of the most notable of which is its new open-platform Universal Listing System, an open-access system that permits PropertyFirst's listings to be

searched and accessed through other listing services (including those of key competitors).

The site is easy to use to in searching the listings for lease and sales properties. It is unusual in the range of property categories listed and for the subcategorization of property types. For instance, the site lists six types of office space. The majority of the listings include good quality photographic images, as well as other detailed data. The site intends to enhance the listings further with such features as virtual tours. The listings available on site are also fairly extensive, although the retail listings are much more scarce.

The site is designed to further assist searches in a variety of ways. Search criteria can be saved and email messages can be sent to users when properties meeting certain criteria become available. The site also maintains an extensive and searchable database of brokers in business nationally and offers a variety of additional marketing and database tools to brokers.

PropertyFirst's relationships and strategic alliances were entered into in order to source listings and to provide added services such as mortgage financing. PropertyFirst has also established a strategic relationship with the Appraisal Institute wherein PropertyFirst will develop and host the Appraisal Institute Commercial Database, the first online databank of appraiser-verified commercial real estate information (provided by members of the Appraisal Institute.)

PropertyFirst has attracted investors including more than 30 firms and individuals in venture capital and the real estate industry. Revenues are generated through listing fees and through fees charged for other services. The fees charged to brokers are generally bundled in a package of capitated services to firms that work out to be approximately \$420 to \$600 annually per broker. It is not clear how this revenue model will translate in the merged enterprise.

PropertyGO.com

<http://www.propertygo.com>

PropertyGo.com is a listings website that targets consumers. With the stated goal of “connecting people with property,” the site reported offers “free information on thousand of commercial real estate properties.” PropertyGO’s business model involves charging listing fees to brokers and property owners, while offering free searches to the public. The site itself is easy to use. A user selects a property type, a transaction type and a state (and sometimes more detailed geographic requirements) then clicks on the “GO” logo. However, the listings are extremely limited compared to competitors in this space. In addition, the data available on the sites listed is less than that provided by competitors. If a consumer was interested in the properties listed, the listing broker minimally would have to be contacted, so at most, a tenant rep broker might be disintermediated from a transaction. While no venture capital was invested in the site, (so the revenue demands on it may not be high), it appears somewhat doubtful that the site will generate sufficient listing volume to remain viable over the long haul.

PropertyRover.com

<http://www.propertyrover.com>

PropertyRover.com is a new real estate search engine site for residential and commercial properties that is in beta testing. It is designed to provide links to multiple listings’ sources, as well as offering a real estate news service. The site launch is expected to be completed soon.

RealCentric.com

<http://www.realcentric.com>

With the motto “Turning Real Estate into Real Solutions,” RealCentric.com is a site that attempts to bring together various aspects of the commercial real estate market including space, services, furniture and equipment to better serve the needs of business tenants. The site

facilitates the leasing process by including a searchable listings database that currently serves the Austin, Chicago, Denver, Las Vegas, Los Angeles, Orange County, San Diego and Silicon Valley markets. The site also includes detailed demographic and economic information on each of the covered MSA's. Searching the site is free to users, while owners and brokers pay a monthly listing fee. In addition, vendors pay a fee to RealCentric for business arranged through the site. The site also includes an expert advice module that includes a glossary, a review of the leasing process, and a "Real Knowledge" section featuring information on trends and industry news. Searching the listings appears to be easy, but technical glitches prevented successful searches on several occasions when they were attempted. Between this and the limited number of areas covered, the long-term success and impact of the site remains questionable.

RealtyIQ.com

<http://www.realtyIQ.com>

RealtyIQ.com is a site geared to real estate professionals that stresses a research-driven focus. Founded in 1991 as a database of commercial properties in New York City, the company expanded this database to 32 markets before launching an internet delivery model. Use of the site is available to real estate professionals who pay \$30 monthly or \$288 annually in membership fees. The site has over 200 researchers who gather information directly from leasing agents and property owners to help build the site's property database. The database includes details on 225,000 office and industrial properties in top markets throughout the nation including more than 100,000 in available listings. The site also maintains extensive tenant information on a large number of companies..

Members of RealtyIQ may access a variety of online products, reports and publications,

as well as searching the listings. One of the features is Property Lookup, which permits users to query the database on any commercial building by address. The Tenant Search function provides users with information such as a property's tenant list, credit reports on prospective tenants, a customized list of qualified tenants for a given property based on criteria delineated by a member, and current addresses on prospective tenants. All of these features add up to a very ambitious site that hopes to be able to help brokers be more effective at each step of the brokerage process. RealtyIQ does this with a straight-forward, good-looking interface. The long-term success of the site remains to be determined however, as the site has already been down for a considerable period of time due to financing problems. And, the recent cash infusion by Zethus that brought the site back undoubtedly is short-lived since Zethus has filed for bankruptcy.

Storetrax.com

<http://www.storetrax.com>

Storetrax.com is a listings website that focuses exclusively on retail property leases. With a logo "The Power Source for Retail Real Estate," Storetrax has steadily increased its listing volume since its launch in 1998 and now includes listings for 670 million square feet in 46 states. The Storetrax business model is one whereby revenues are generated through listing fees. The fees themselves are relatively modest, starting at \$35 per property per month for a basic listing, with multiple listings generating volume discounts. Each listing includes an interactive site plan, property photo, tenant list, demographic data, and contact information. The site's listing volume is such that even though the listing fees are low, volume is sufficiently large to produce an ongoing revenue stream. While no venture capital was invested in the site, it is not known if

the level of revenue is sufficient to make the site profitable.

The site itself is very easy to use, and its focus gives it a distinctive identity to users. To search the listings one enters more or less restrictive geographic criteria and clicks on the search button. Unlike some other listing sites, listings are then viewable. The listings themselves are not all as visually sophisticated as the site permits, but are none the less accessible and easy to use. The site also includes linkages to other industry sites and a “Retail Forum” board to encourage discussion of current industry topics. [People seem to use this for promotional rather than discussion purposes.]

TenantWise.com
<http://www.tenantwise.com>

TenantWise is a listing and transaction site that specializes in leasing office space in Manhattan. It aims to serve all segments of the office market, including landlords, tenants and brokers by pairing a standardized web-based leasing process with staff representatives. TenantWise permits landlords to list properties without charging a fee, provides them with almost immediate access to a significant pool of potential tenants, and offers a 20 percent reduction in commission rates on transactions when compared with traditional fees. For brokers, the site provides an opportunity to list free of charge, and while such a listing will reduce a broker’s fee, the site will provide a co-brokerage fee of up to 50 percent of a standard commission. The site implies that the time savings brokers will experience through the TenantWise process will more than compensate for the lower commissions earned through the site. Referral fees can also be earned.

TenantWise particularly tailors its services to potential tenants by providing a one-stop

shopping opportunity to find and lease space in the complicated Manhattan market. The site standardizes and explains the leasing process and also offers access to a variety of resources potentially helpful to office tenants. Brokerage fees are also discounted, at up to a 40 percent savings compared with traditional commissions. The site also offers the opportunity to involve one's own tenant rep broker in the process.

The site's listings within Manhattan are fairly extensive. A search of the listings can be conducted by either choosing from among 20 Manhattan neighborhood selections, selecting a range of streets or avenues, or picking a specific building address in conjunction with the potential tenant's square footage estimate and some general budgetary requirements. The overview search provides general information about potential sites that match a tenant's needs.

In order to access more detailed information, a tenant must officially register with the site, agreeing to use TenantWise as tenant rep for space listed in the site. At this point, the tenant can also list a referring broker. When the tenant has reviewed more detailed information on the sites, TenantWise can schedule tours of the appropriate properties, as well as hire any consultants needed. Representatives associated with the site will help tenants make offers and negotiate the lease process. They can also help in securing any other goods or services needed to occupy the new space.

Since the site is privately funded, it is difficult to evaluate its profitability. Given the volume of listings, it appears to have established itself in the market and is generating some kind of cash flow however. While the site itself theoretically disintermediates at least a portion of a broker's services and income, by also sharing commissions TenantWise may be able to gain acceptance in the brokerage community. At the least, it is an attempt to provide a discount

brokerage model.

TradeAddresses.com
<http://www.tradeaddresses.com>

TradeAddresses.com is a licensed real estate broker designed to sell and lease commercial properties on-line. The site was developed by the San Francisco Bay area-based firms of Starboard Commercial Real Estate and TCN Worldwide Real Estate Services. It relies on a “worldwide” network of independent member organizations, each of which is a “local market leader.” Users have the option to execute agreements on-line or to request an appointment with experienced “trade facilitators.”

In order to search the listings, one must enter into an agreement to use the firm as a broker. As a result, it is difficult to assess their listings, but given the fact that all of their “facilitators” are based in the San Francisco area, national listings almost certainly are not extensive. Members of the worldwide network of independent member organizations are not listed. Two of the sites pull-downs, “Save \$ on Moving” and “Partners,” link to other sites, “EverythingOffice.com” and “Mucho.com”, the latter being a site for small business owners.

One part of the site is the “1031 Exchange,” named after section 1031 of the internal revenue code, which permits the deferment of tax payments on “like kinds” of property exchanges. To utilize this portion of the site, one must post a property for exchange and agree to use TradeAddresses to broker the exchange transaction in accordance with the regulations of section 1031.

It is somewhat hard to evaluate the success of the site, but it would appear to function primarily to provide added assistance and new leads to a local brokerage firm.

Web-Real-Estate.com
<http://www.web-real-estate.com>

Web-Real-Estate.com is a sales and leasing website that covers properties in approximately 15 states. Aimed at “competitive real estate professionals” the site seeks to promote “actively marketed properties” and touts its services as providing “the most comprehensive information available on line.” The site’s business model is one whereby revenue is generated through listing fees, and it aims to increase covered areas over time. Searching the listings is free. Geographically diverse, the listing states include some rural and southern areas that tend not to be covered in other sites, as well as New York.

The site is fairly easy to use. Listings can be accessed by entering a property number or by searching the site by various criteria. The number of listings is low. For instance, just two retail properties were listed for the state of North Carolina. Many of the listings themselves are, however, more extensive than those available on many other sites and include detailed photo arrays of the property that the user can zoom in and out of. The map feature on the site also includes a zoom function.

Given the low volume of listings and the odd mix of areas partially covered, it is hard to be optimistic about the site’s long-term potential of establishing a place for itself nationally.

Zethus.com
<http://www.zethus.com>

While never launched, Zethus was believed to have had the potential to play a very important role in commercial real estate by facilitating the whole brokerage process electronically. It is worth monitoring what happens to its assets. Formed by an alliance of the e-commerce firm Inforte, Sun Microsystems and Goldman Sachs, the company attracted an

estimated \$40-50 million in venture capital and developed a “patent-pending web-based technology platform to conduct commercial transactions.” Their aim was to “transform how transactions are executed in the real estate community,” while also developing “an enduring business with a clear path to profitability.”

In general, its long-range goals appear to have been similar to those of recently-launched Peracon in their aim to facilitate the entire transaction process on the internet. However, Zethus was believed to conduct leasing as well as sales transactions.

The company’s motto, “Time, space and the bottom line...” emphasized the firm’s aim to increase industry efficiency. In a press release, the Zethus platform was described as “automating many of the processes involved in leasing, buying and selling commercial property” and providing tools online that “offer a cost-effective, comprehensive, and neutral transaction platform that brings buyers, sellers, landlords, tenants and brokers together to conduct business more efficiently.”

e-Real Estate Transaction and Listing Sites

	Site Name	Currently OnLine (Y / N)	Type (Listing / Transaction)	Listing Volume (Ballpark)	Listing Costs	Access Costs	Target Audience (Brokers/buyers, etc.)	Intended Scope (Nat'l, regional, local)	Prop. Type [1]
1	BigBidder	N	T (auction)	N/A	N/A	N/A	Buyers	Likely National	C, R, L
2	BizTrader	Y	L / T	+/- 100	\$40 - \$50 / Month	None	Buyers	National	C + small bus.
3	Blacksguide	Y	L	+/- All major props	None	Online - none	Brokers	National	O, I
4	Cityfeet	Y	L	+/- 10,000?	Not Clear	None	Tenants	Key Markets	O, I, Rt
5	Commercial Space Online	Y	L	+/- 10,000	\$35 / year	some - <\$75/yr	Tenants	Key Markets	O, I, Rt
6	CoStarGroup	Y	L/T	+/- 800,000	None	Sub. / Access	Brokers	National	C
7	LookingForSpace	Y	L	+/- 5,000	None	None	Tenants	Key Markets	O, Rt, I
8	Loopnet	Y	L/T	+/- 125,000	None	Some fees	Space users / sellers	National	O, I, Rt
9	MovePoint	Not fully	L	N/A	None - enhanced --> fee	\$25 and 1.5%	Tenants	National	O
10	Netstruxr	Y	L	Limited to Test Cos	None	.5% (Landlords)	Landlords	National	O
11	OfficeDirectory	Y	L	+/- 10,000?	None	None	Tenants	National	O
12	OfficeFinder	Y	L	Unclear	None	None	Tenants	National	O
13	Office2Share	Y	L	Unclear	Monthly Fee	None	Tenants	National	O
14	Peracon	Y	T	+/- 10	Substantial	Restricted	Brokers	National	O, I, Rt
15	PropertyByNet	Y	L	+/- 5,000 ?	Free	\$240 / year	Brokers	Southern Cal.	C
16	PropertyFirst	Y	L/T	+/- 50,000?	+/- \$500 / year	None	Brok / Buy / TTs	National	C
17	PropertyGo	Y	L/T	+/- 1,000	Yes	None	Brokers	National	C
18	PropertyRover	N	L/T	N/A					
19	RealCentric	Y	L	+/- 5,000?	Unclear / None?	Unclear / None?	Tenants	National	O
20	RealtyIQ	Y	L/T	+/- 350,000	None	+/- \$300 / year	Professionals	National	C
21	StoreTrax	Y	L	600 MM SF	+/- \$35 / month	None	Space users	National	Rt
22	TenantWise	Y	L/T	Unclear	None	None	Space users / sellers	New York City	O
23	TradeAddresses	Y	L	Unclear / small	None	Use as Broker	Users	National	C
24	Web-Real-Estate	Y	L	Small	Fees	None	Users	Limited	C
25	Zethus	GONE							
	Footnotes								C = Commercial R = Residential O = Office Rt = Retail L = Land M = Multifamily I = Industrial