

How Steve Jobs made your buildings more valuable---and how you can capture that value

By Joel Hariton and John Baczewski

The legacy of Steve Jobs will always be the innovative way he delivered intuitive access to the information age. However, there are effects of his work that can directly improve the Net Operating Income, cash flow and value of your real estate assets. Let's explore the direct line from the iPhone and the iPad to a new revenue flow for your asset. We will also address how leasing a small amount of space will improve wireless service to the building's tenants and visitors while disproportionately enhancing property value.

What game change did Steve Jobs unleash?

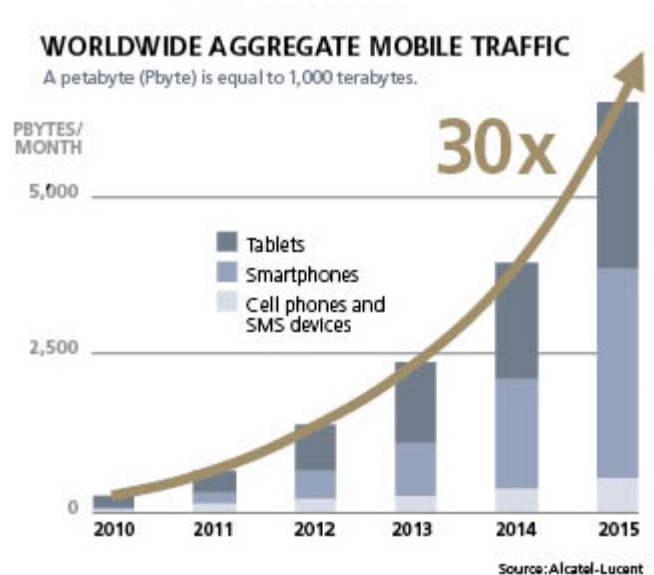
Throughout the 1990s wireless operators were seeking the "killer application" that would finally get mobile phone users interested in using the data communication capabilities of their phones. Some good progress was made when Research in Motion succeeded in delivering a secure and robust e-mail delivery system for individuals and enterprises. But the explosion in data usage in the wireless environment really happened when the iPhone became a sensation.

The 'Killer App' turned out to be a platform with thousands of easy to use Apps accessed from easy to use phones. This enabled not only e-mails on the go, but tapping the web and all it had to offer. Other handset manufacturers have been emulating the iPhone breakthrough ever since, and the exponential growth of these devices in the market, multiplied by the huge growth of data usage per phone, has created a tsunami of new data flow that the cellular carriers continue struggling to satisfy. This creates real opportunity for building owners, who hold some of the keys to the solution.

How big is this rise in data traffic? World-wide from 2010 to 2015, mobile phone data traffic is increasing 30 times, see chart below, but in the United States the growth has been much more. AT&T Mobility was hit particularly hard; because of the time it had an exclusive on the iPhone, whose users produced the most traffic. AT&T Mobility saw an 8000%, or 80 times, increase in traffic on their network during that period of exclusivity¹. Remember how the AT&T network was criticized a few years

¹ As per Dan Meyer of RCR Wireless, DAS in Action, April 11, 2012

ago for poor performance? The iPhone's unexpected flood of traffic was the major cause, and the company could not respond fast enough.



Will this growth continue? Yes. Even from the new large amounts of traffic, Cisco predicts that mobile traffic growth will increase with a compound growth rate of 78% per year globally from 2011 to 2016. Cisco also claims that video over mobile creates more than half the mobile data traffic increase since 2011. With iPads and other tablets becoming ever more popular, this trend of video heavy data usage will only accelerate. Already, the average tablet on a mobile network creates 3.4 times more data traffic than the average smart phone. So Cisco's estimates may be conservative.

Mobile operators have been sinking billions of dollars into their network expansion every year since the 1980s. Now each of them will have to annually expand their network data capacity to approach the previous cumulative history; a tall order indeed!

How does this create opportunities for the building owner?

Cellular carriers have adopted two tactics which are valuable to the building owner:

1. Investing in faster network development with cell splitting – this means adding many new sites on towers and on building rooftops.
2. Developing indoor Distributed Antenna Systems (iDAS) in busy buildings to off load traffic.

Implementation of these solutions creates demand for real estate. The demand for building top antennas and towers is increasing substantially. But towers are rarely located exactly where the carriers need them. This is spawning the technology equivalent of a good, old-fashioned "land-grab" for rooftops and iDAS as carriers and intermediaries vie for the best locations.

Like most leasing, the best locations will command the best rates. However, in most cases, building owners will be presented with the opportunity to lease non-prime space, on a percentage rent basis—resulting in premium rates relative to the rest of the building. There is, however, a catch. Meeting current capacity doesn't require an installation in every building. One or two in a neighborhood will probably suffice. *If a building owner is going to lease space at premium rates, shouldn't it be you?*

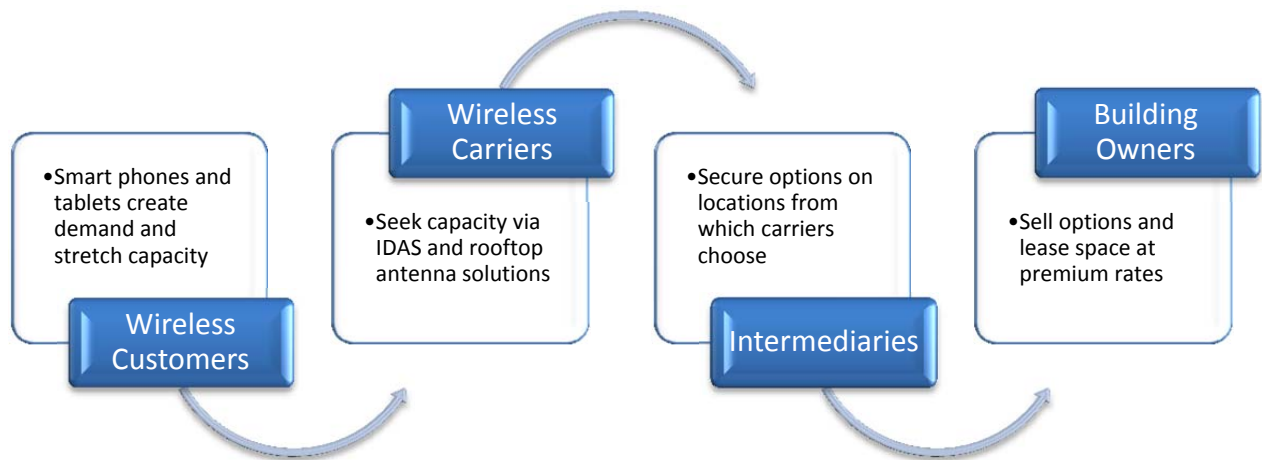
These technology driven solutions have direct and indirect benefits for leasing space in a building. Rooftop wireless development and Indoor Distributed Antenna Systems (iDAS) are two methods for wireless operators to cost effectively increase capacity while at the same time improve signal levels.

Indoor Distributed Antenna Systems are a new technology that will benefit owners of large commercial real estate buildings; (those with several thousand occupants/visitors per day). The benefits are huge for the person trying to get a good cellular signal within a building. With energy efficient buildings the challenge to make a good connection is particularly difficult. Tinted windows not only minimize sunlight penetration, but they also attenuate radio signals. With an iDAS system, tenants will find that their handset or tablet will have a stronger connection to the nearest cell site via that indoor system. The device will automatically run on low power settings to reach an antenna in the ceiling just a short distance away.

These solutions not only help the carrier deliver data traffic well, but also allow customers to realize the full potential speed of the data delivery by ensuring a good signal at very low power. This means their handset downloads data faster and the *battery lasts longer*. Additionally, voice services from the carriers will also be more reliable inside buildings, where studies show that about 80% of the cell phone usage is initiated.

How can this demand be monetized?

First, it is necessary to understand the market participants.



- The demand caused by new smart phones and tablets will drive the wireless carriers such as AT&T, Verizon, T-Mobile, Sprint, Cricket and Metro PCS to seek new cell sites and iDAS locations that fit their radio plan. They may approach building management directly, but this is cost inefficient and time consuming for both the carrier and building management. The building owner must negotiate with each carrier to lease space and the carrier would waste time going through this process on a building by building basis.
- Intermediary tower companies now have divisions that manage rooftop locations and iDAS sites. These companies, such as American Tower, Crown Castle, SBA and Global Tower Partners have established relationships with all of the wireless carriers, with commercial terms already established for multiple carriers enjoying the benefits of sites (in this case your buildings). Additionally, these companies have the financial wherewithal to develop the sites to be ready for the carriers to install their equipment. The preparation of a single site can require an investment by the intermediary of over \$1 million in the case of a large iDAS system.
- Building Asset Management with portfolios of buildings that include sites that are attractive to the carriers for rooftop and/or iDAS are in demand. By making a collection of building sites available at once, numerous efficiencies are achieved in reaching commercial agreements for all parties.

Wireless Real Estate Consultants effectively merge a deep understanding of the wireless marketplace and tenant needs, providing a new service supporting this unique business opportunity while representing building owners and managers. Looking out for building owners throughout the process, the Wireless Real Estate Consultant creates a competitive process to ensure the best offers are obtained for the portfolio. With a technically detailed and tailored RFP issued to multiple tower company's

intermediaries, and knowledgeable analysis of the offers, the Wireless Real Estate Consultant can ensure the Building Asset Manager obtains the best proposal the market can bear.

An experienced Wireless Real Estate Consultant, that knows this business, can take the responsibility of pursuing the opportunity with minimal effort by the Building Owner or Manager. Dedicated to the interests of the building, the Wireless Real Estate Consultant works to maximize the revenue potential of the wireless development, while also ensuring that the successful bidder for the sites takes full responsibility for keeping the carrier satisfied through installation and maintenance of the latest technology.

Why is this a win, win, win?

This is a solution model which offers benefits for each market participant.

The mobile device user gets substantially better service, longer battery life and improved safety.

Wireless carriers address capacity and coverage concerns in an efficient, systematic way.

Intermediaries see business growth, higher revenue and solidify relationships on both sides of the transaction.

Real Estate Owners/Managers derive:

- Ability to offer a portfolio-wide solution to exploring the wireless revenue source, achieving superior pricing
- Increasing long-term property revenue from currently unused or underutilized space
- Little or no capital expenditure by the building owner to generate additional revenue
- Efficient use of owner staff time by outsourcing the technical RFP and much of the negotiation process

When a rooftop is developed for wireless, or an indoor Distributed Antenna System is deployed, revenue from the wireless carriers is shared between the tower company intermediaries and the building owners. In the case of an iDAS system the building tenants enjoys greatly improved wireless services and the potential for greater safety. The greater safety comes not only from improved mobile communications, but the opportunity to enhance first responder communication systems.

Steve Jobs delivered to the mobile industry what they were always after, compelling data service that subscribers just cannot get enough of, but in volumes that the carriers can barely contain. Building owners and managers can be white knights to the rescue, while reaping part of the reward. Let Hariton REFS help you make this happen.

Joel Hariton

Mr. Hariton has over 30 years' experience in deploying and operating wireless networks. He has successfully managed rapidly growing technical operations on 6 continents. Most of these entities were start-up businesses established under harsh conditions.

While Mr. Hariton was the lead engineering executive at Millicom International Cellular, it grew from a market value of \$ 14 million to over \$ 3 billion. He contributed to this rapid expansion through efficient planning and oversight of engineering and technical operations. He carefully managed a diverse engineering team located in 22 countries, while keeping careful controls on spending and service quality.

An expert on wireless technology, standards, and operations, Mr. Hariton has negotiated and overseen the efficient deployment of over \$500 million in infrastructure hardware and services.

He has played a key role in bringing pioneering new wireless services to market, in both the USA and in numerous markets overseas. He has created processes and procedures in new businesses that efficiently ensure quality service while developing technical staff competencies and loyalty.

John Baczewski

John Baczewski, CPA, is president of Real Estate Fiduciary Services, LLC (REFS), which provides independent fiduciary services and consulting to institutional investors. Baczewski has nearly 30 years of experience in institutional real estate investment, finance, management and monitoring, along with 10 years of Big Four public accounting experience.

Baczewski's breadth and depth of institutional real estate experience includes investment strategy development, portfolio and asset management, due diligence and transaction management, operational reviews, accounting, performance measurement, client service and capital formation and Real Estate Information Standards (REIS) related policy development.

Baczewski Chairs the REIS Board, which promulgates information standards for the institutional real estate investment industry. Baczewski is a fellow of the Homer Hoyt Institute, a former Editorial Board Member of *The Institutional Real Estate Letter-North America* and serves as a director of Benchmark Research Technology Services, an independent research and strategic consulting firm serving the real estate industry.

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