

As Prepared for Delivery

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“Where is the Love?”

I’m delighted to be with you again.

I want to start by answering the burning questions of the day.

First, is Skype worth \$4 billion or nothing? To Skype’s founders, it is, happily, the former; to eBay’s current shareholders’ it is unhappily the latter. But going forward, can eBay change the answer and create shareholder value?

Second, for cable and telephone companies, and some VoIP companies, will it eventually become difficult to sell voice as a stand alone service to their most valuable customers, as voice becomes only a feature of connectivity?

Third, is wireless VoIP a meaningful phrase?

Fourth, in the wake of Katrina will the country reconsider how we build our communications infrastructure and will VoIP be involved?

Fifth, will the government generally weigh in on the side of incumbents on issues in which the VON community is on the other side?

The answer to the first four is yes. The answer to the fifth is, as my teen-age son says, “no, duh.”

Right after the FCC E-911 meeting this Spring, I was talking to a shell-shocked VON community member who expressed disbelief and anger that the FCC would require VoIP providers to do in 120 days what it gave wireless providers a decade to do.

His words were lawyerly but the emotion was right out of the Roberta Flack 70’s classic:
“Where is the love,
you said was mine, all mine,
Till the end of time,
Was it just a lie?
Where is the love?”

The short answers to these questions are yes, and not in Washington D.C.

So let me, by way of answering more fully all those questions, address the question, where is the love?

In the early days of the Internet, even before Netscape, some enterprises that eventually became ISPs decided to build a business on top of other companies' networks---the narrowband PSTN---by building a community in which it was easier to communicate with those in the community than those outside the community. Government policy gave such ISPs a right to essentially free access to the last mile portion of that network.

The most successful of these was AOL. It used various techniques, such as the way it did addresses and keeping IM from being interoperable, to encourage members to stay, and communicate, within its community.

The business model of AOL diminished as narrowband diminished and broadband grew. But other Internet business models---such as eBay, Amazon, Yahoo and Google---prospered.

These business all created communities that themselves created shared content, all enabled individualization, and none included as its core value two-way communications built on top of someone else's communications network.

So where are we today?

There are lots of different ways enterprises in the VON community are going to make money, from creating great new technology, to providing services to enterprises that take advantage of that technology.

As broadband penetration grows, and particularly when new, alternative broadband pipes become available---a subject for another time---IP business models become more attractive.

I want to focus today on what I think on three basic business models for VoIP services that have emerged most prominently.

The first is PSTN VoIP of which Vonage is the best-known example. These companies use software to create voice services that are not tied to a physical network, and that compete directly with ILECs and CLECs.

Vonage, and others, sell themselves as cheap alternatives to LECs. But as an analyst, I wonder what will it do to their model when certain cost-saving regulatory advantages are eliminated? And how can it be sustainable for a company whose inputs (such as customer acquisition, billing and certain network costs), on a marginal cost basis, are more expensive than their cable and LEC competitors, to retain that low price position?

The second model is Peer-to-Peer Voice (P2PV), of which Skype is the best known. Like Vonage, it is a pure voice product. Skype is similar to early AOL in that it is riding for free over someone else's network to offer a communications service which creates incentives for users to stay within the community.

Again, as an analyst, certain problems spring to mind. First, the revenue appears largely to be based on Skype's products that interconnect with the PSTN. To the extent the revenue grows, so does the risk that Skype will be subject to a number of charges that PSTN services are now facing. What will it do to Skype's business model, which is based on a very low Average Revenue Per Unite (ARPU), if E911 (Enhanced 911) is mandated and it has to pay an amount some estimate to be \$4-8 a month per subscriber to interconnect to the Public Safety Answering Points (PSAPs)? What if it has to comply with the Communications Assistance for Law Enforcement Act (CALEA) and enable wiretapping for all its calls, provide disability access, or collect for universal service?

Another concern is how will both the Vonage and Skype models compete against the bundle offered by the ILECs and Cable? Vonage and Skype offer a pure voice product that increasingly competes against a bundle of voice, video and data products in which voice will be diminishing in importance as a revenue source, particularly as voice migrates to wireless.

Further, if cable and the Bells are able to offer bundles with new functions that require integration, such as having the caller ID number show up on your television when a call comes while you are watching TV, will a pure voice service be able in the long run to compete?

Don't get me wrong. I greatly admire Vonage and Skype. They have both generated significant innovations and brought great energy to the sector. But the history of business, from Philo T. Farnsworth to Sony's Betamax to Netscape to @Home to even Apple relative to Microsoft suggests that the great innovators, the great technologies, the great visionaries, don't always create the great businesses.

There is another fundamental risk with both business models. They depend on the government enforcing some kind of requirement that the incumbent networks don't interfere with their bit stream.

Putting aside what I personally believe might be the appropriate policy, as a Wall Street analyst, I would not advise betting on the indulgence of the incumbents to allow their business model to be hollowed out by others who ride over them for free.

I don't exactly know whether or how they will interfere though there are a number of possibilities, particularly given network functionalities such as packet interrogation.

And the incumbent networks don't necessarily have to be acting with malevolent intent. They could develop improved network functionalities that they will not be forced to share with other applications providers.

If the network owners' business model is hollowed out, one can easily envision, as the FCC recently did in changing the requirements of E911, new rules that enable the incumbents to assess charges that help them recover the costs for building and operating the network. In a raw political show down pitting, say, Vonage and Skype against the Bells and Cable, you certainly don't need me to predict who will win in Washington D.C.

Finally, this is not just a U.S. problem or a U.S. market. Indeed, the problem is probably going to be bigger in other countries, particularly those who depend on high access charges to fund the government's budget. One example of the problem is that news that reportedly China Telecom started blocking calls from Skype in order to protect its own long-distance revenues.

But there is a third model that gained enormous momentum this summer, which I think holds significant promise. We might think of this as Peer-to-Peer Communications (P2PC) in which Internet communities facilitate a number of activities, with communications enhancing those activities and with voice as a subset of those communications.

Obvious examples include Yahoo, Google, MSN, Amazon, EBay, and, trying to make up for lost time and opportunity, AOL.

While some would say they are in different business---search, multi-media, retail, or auctions---they are really all in the information management business.

In their business model, the information is free and the connectivity is free.

They get paid because they manage certain kinds of information better than anyone else.

They succeed because they have a culture that always expands the kinds of information they manage and skill with which they manage it.

Just as Microsoft was able to move from monetizing their OS to creating a sticky---to date---set of applications known as Microsoft Office, the others are building suites of services that they hope will keep customers using their information management tools.

When we spoke last spring, and indeed going back a number of years, the potential of these companies to offer voice was well known. Certainly, Microsoft, building on the assets of Windows with embedded SIP and Outlook's Contacts, or Yahoo with its tens of millions of users who pay for some services, or AOL who announced a VoIP service last spring, were natural entrants.

Indeed, all three are already facilitating communications between tens of millions of their users with email and instant messaging.

There are, however, some potential business conflicts. Microsoft has significant deals with the Bell companies for IPTV set-top boxes. Yahoo has very beneficial deals with Bell companies involving DSL and certain Internet applications. AOL is a subsidiary of a company with major cable network holdings. An aggressive, full-scale, direct assault by these companies into the voice market was both unlikely and probably ill advised.

But into this mix comes Google. Much like a prisoner in the prisoners' dilemma who talks, Google's entry into a variety of businesses has generated a sense of urgency among the others who fear that if they don't start to play offense, they could be playing a lot of painful defense.

And this spring, the buzz started that the next place Google would go would be voice communications.

So Yahoo buys DialPad, Microsoft buys Teleo, Ebay buys Skype, Amazon adds Yellow Pages and AOL prepares a softphone for AIM.

And the buzz proves at least somewhat true, as Google introduces GoogleTalk.

I think this is all great fun.

I believe this P2PC business model has significant advantages over PSTN VoIP or P2PV, and ultimately could be a bigger threat to traditional PSTN service providers. Among the reasons are the following:

First, it builds upon existing business models. It does not need to spend a lot of time and money on customer acquisition as these companies already have tens of millions of customers and strong brands. It does not need to take the risk of a start up of investment without a revenue stream. The companies using this model can survive a few mistakes or a bad business cycle and still keep developing and improving their products.

Second, I think it is likely to develop innovations faster than the PSTN, or PSTN competitors. Can there be any doubt that the engineers at Google, Yahoo, Microsoft, EBay/Skype and others, all operating on Internet time, will create innovation cycles orders of magnitude faster than those of the traditional networks? Can there be any doubt that such innovations will mean that voice communications will no longer be the providence of just the phone, that it will be integrated into many consumer electronic devices and web applications, that it will provide many new features in a consumer friendly manner, and that it will become highly mobile? Can there be and doubt that every year such innovations will lead millions of people to start using such offerings for non-PSTN voice communications.

Therefore, they will provide an easy migration path for millions to start using such services. And these services will not depend upon lower prices as a sole selling point, a value proposition that not only makes Wall Street nervous but also is particularly problematic when inputs cost more on a marginal basis than a competitor.

In this regard, P2PC is more complicated threat to incumbents than, say, Vonage, because it does not appear at first to be a direct competitor. But, as discussed in the classic work, The Innovator's Dilemma, the more problematic threats often come from a product that attacks from a niche but that overtime, through innovations unseen by the incumbents, becomes a direct threat.

Third, by virtue of those innovations, I think it will become adopted by and essential to intra-group communications, including corporate enterprises and membership organizations. Such enterprises need a variety of ways to communicate internally. Simply having a voice product is not enough, but an integrated suite of communications services, particularly with no time or distance based costs, could be very attractive.

Fourth, it will have a moment where it proves its mettle

Katrina was not a seminal moment for VoIP though it arguably should have been, as a combination of instant WISPs and other broadband technologies, in combination with VoIP created communications networks that were up and running more quickly and more flexibility than traditional PSTN networks.

But I suspect there will be such a moment when the value of IP based communications, particularly through P2PCs, becomes crystal clear to all. The Internet, designed to enable communications after nuclear attack, is inherently more valuable in a crises, as it has built-in redundancy, and does not depend on a single network to work.

It is not difficult to envision a crises when, whether you are using Yahoo, Google, MSN, eBay or AOL, those communications networks will enable critical communications faster and more effectively than PSTN based networks.

Fifth, it will be politically more sustainable.

To date, the most important principle of the regulation of VoIP has been that if a service does not touch the PSTN, it does not get dragged into the various regulatory requirements of a PSTN connected service.

To the extent P2PCs remain pure P2P, going after the P2PCs by imposing regulatory-based costs on such services will be tough on the basis on existing precedent. And if the government decides to break with existing precedent, it will be difficult to find a new line that does not lead to wholesale regulating the Internet, which would be opposed by many.

It will also be harder to go after P2PCs because it will not be as obvious that they are competing with or replacing PSTN services. One can envision a number of uses, such as

click-to-call services on a web page, a localized search, or an auction, that even if they involve some inter-connection with the PSTN, will not be seen by regulators or users, as a replacement service for PSTN.

Finally, P2PCs also have a political base that at least has some ability to be a counter-weight to network owners.

As Vonage learned with the FCC's 911 ruling, in which it became the poster child for the problems of non-911 compliant VoIP, being isolated in a political arena is a recipe for defeat.

Long-time players, such as the Bells, understand that any successful public policy effort requires an alliance. Thus, while they always argue law and facts, they never fail to mention (and make sure they are also lobbying) the others---equipment providers, labor unions, and even newly minted astro-turf organizations composed of key constituents who will suffer if their preferred policy outcome is not adopted.

Let's put it this way. In which battle are the Bells more likely to be able to attach access charges to peer-to-peer voice? One in which a million Vonage users or millions of unorganized (and largely international) Skype users face higher bills?

Or alternatively, a battle in which the Bells have to confront the 400,000 small businesses Vice-President Cheney bragged about relying on eBay, the tens of thousands of web publishers who get \$2 billion a year from Google's advertising network, the tens of millions of users of Yahoo and AOL instant messaging and the millions of small businesses using tools on Microsoft's new Vista operating system to save on phone bills are aligned against such fees?

I'm not saying who is right or wrong---only that the odds clearly favor the incumbents in the former, while the latter would likely have closer to even odds.

These factors do not guarantee the success of P2PC, nor the end of the PSTN. As we learn, often to our pain on Wall St., bets are made on odds, not certainties.

And there are a number of uncertainties.

One is public policy.

If one looks at most government actions in most countries in most times in history, one has to come to the conclusion that most times, most governments are going to favor the incumbents over the new entrants.

In this light, the decisions on a variety of issues, such as Level 3, 911, Brand X, DSL, CALEA, among others, is hardly surprising, whatever one's personal view of the merits.

I expect that pattern to continue. On most issues, I do not see the stars aligned to provide the VON community, which includes all modes of VoIP, with significant policy victories---the big question is the size of the defeats.

This has nothing to do with the quality of your advocacy, but rather a variety of institutional realities.

As to network neutrality, I think it is a smart tactic for you to keep raising the issue as it forces the incumbents to make statements that may be valuable in the future. But don't kid yourselves--- while there is broad agreement about the principle, there is no consensus on the details and enforcement is likely to be tricky.

There are even business models I can envision in which VoIP providers might want to cut deals that violate network neutrality principles. So be careful what you wish for.

Nor are you likely to win on a variety of issues that have been raised in the context of the Bell/IXC mergers. The VoIP related issue that has gotten the most traction---requiring the Bells to sell stand-alone DSL---is not a certainty and even if it is required, it is unlikely to include price regulation, thereby limiting its effectiveness as a remedy.

The one place where you have a good shot at prevailing on policies that could improve your business case are on those issues where the government affects the number and robustness of broadband pipes. There are a number of such proceedings, ranging from the digital television transition to the question of whether municipalities can build, own, and operate their own broadband networks.

I won't belabor the details here, but the simple point is, from the point of view of most of you here, the more last mile networks, the better. The bigger they are, the better. Not only does more and bigger create cheaper and more robust connectivity---which increases the value of your products and services---in the long-term, it provides a stronger protection against network discrimination than government policies that require complicated enforcement.

According to one study, the United States ranks 16th internationally in broadband connectivity on a per capita basis. We also reportedly rank 16th in VoIP usage. Nothing is more likely to bring down both numbers than more and better broadband facilities. And there is much you can do, both in terms of advocacy as well as with investment.

In that regard, Google's investment in Broadband over Powerline certainly helped raise the profile of that broadband alternative. I might note, however, that investing in networks that enable mobile search, and thereby increase the addressable market, strike me as more helpful than investments in another fixed broadband provider. Perhaps Google agrees, as there are reports today that it is considering building its own WiFi network.

And, as noted above, it will be much tougher for the PSTN community to use regulation to attack pure P2P offerings.

But the most important uncertainty is business strategy.

I don't believe that any business outcome---other than revenue migration from voice to wireless and data---is preordained.

The cable and telephone businesses are run by smart people who have the resources and skill to create products and services that will be competitive. Their strategies, and how they execute on them, will certainly be important.

And strategy and execution will be important on the P2PC side as well.

In this regard I think the most important strategic question is how the lack of interoperability is overcome.

Overtime, communications wants to have ubiquitous connections.

Imagine how slow the path to ubiquitous email usage would have been---indeed, how slow it was in the early days--- if everyone had to have multiple email software packages to communicate with all the folks one wanted to email.

P2PC will have a positive impact on the companies that add it to the suite of services they offer even without interoperability.

But it will have an extraordinary impact on society when the various suites become interoperable.

There are lots of technical issues and, even more important, business issues that need to be resolved to enable interoperability.

But if and when that happens, P2PC will have the ability to compete with the PSTN without touching the PSTN.

When that happens, particularly if combined with new alternative broadband pipes, the business leverage will change, the economics will change, and the politics will change.

This does not mean the end of the PSTN. The PSTN will have a long tail. After all, some people still use rotary phones and tens of millions still use a separate long distance services.

But the moment of P2PC interoperability will be the moment that changing the PSTN business model will go from a good idea to an essential idea.

And that will lead to some very interesting competition indeed.

And a new paradigm of VoIP getting a “whole lotta love.”

Let me close by noting a more recent song with the title “Where is the Love?,” the 2003 anti-war hit by the Black-Eye Peas. It suggested too many in the world were “Makin’ wrong decisions, only visions of them dividends...Most of us only care about money makin’/Selfishness got us followin’ our wrong direction.”

It is perilous---for one thing it is admittedly silly--- to argue with rock lyrics.

But certainly in the case of trying to bring the benefits of innovation and competition to the telecommunications sector, there is nothing wrong with thinking about dividends.

Indeed it is essential.

What is also essential is to recognize that those benefits have to arise from something more than a free ride along an expensive network, and that a world with many winners is more sustainable, and ultimately more profitable, than a world with one.

Thank you.

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