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Sascha Vitzthum

Emory University, sascha_vitzthum@bus.emory.edu

Benn Konsynski

Emory University

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Communications of the Association for Information Systems

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EBAY's Acquisition of Skype SA: Valuing the Voice of the Buyer

Sascha Vitzthum

Goizueta Business School, Emory University

sascha_vitzthum@bus.emory.edu

Benn Konsynski

Goizueta Business School, Emory University

Abstract:

This set of teaching cases deals with the surprising acquisition of VOIP provider Skype SA by e-commerce giant eBay in the fall of 2005. The initial case examines two distinct topics: First, it introduces VOIP technology and traces the development of commercial applications from 1995 to 2003. Second, it considers issues of strategic alignment by raising the question of whether eBay should have allied with or acquired Skype SA. The second case provides an epilogue set two years after the acquisition that examines the intermediate outcomes of the Skype integration.

Keywords: IP telephony, Voice over IP (VOIP), disruptive technology, strategic alignment, technology acquisition, IS strategy, teaching case

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PART A

[In 2003] I went to one of the large carriers and I told them, 'You won't believe the explosion of PC-to-PC calling we're seeing at SIPphone.' He said, 'You know, geeks might talk to each other on PCs, but I don't see normal people using their PCs to make calls.' And I was struck by a very similar conversation I had about seven years ago with the record labels when I said, 'You won't believe what's happening, people are listening to music on their computers.' And I remember them saying, 'Well, we don't think the average person is going to listen to music on a computer.' And you tried to explain to them, 'Well, look, you can do so much more with a computer—you can organize your music and make playlists and burn CDs.' They couldn't get it.

Michael Roberson, CEO of SIPphone [Rojas 2005]

I. INTRODUCTION ^{1, 2}

The early fall of 2005 was full of speculation about the future of the major Internet players Google, Yahoo, and eBay. In the constant struggle to gain market share and to extend their user bases, the three companies were looking to Internet communication service provision as a potential target for market extension. Yahoo started the reign of deals when it acquired Dialpad, a Voice-over-Internet Protocol (VOIP) communications provider, and its user base of 14 million in June 2005 for an undisclosed amount. Google soon reacted by releasing its own VOIP service, Google Talk, in late August.

While it was expected that the two leading Internet portals would make a move toward acquiring VOIP capabilities, it came as a surprise when eBay, the world's leading online marketplace, announced plans to purchase Skype SA, a European VOIP provider in September 2005. The deal, potentially worth more than USD 4 billion, was rationalized with synergies between eBay's business lines and as an acquisition of a user growth engine. Although eBay had been successful in the past with integrating of new businesses such as PayPal, many outside observers had doubts whether the acquisition of an unrelated business was a wise business decision:

Had eBay overpaid for potential synergies amid the market pressures for a service that it could easily have leased or was it positioning itself to become a major player in a USD 2 trillion telecommunications industry?

II. BRIEF HISTORY OF VOIP AND THE IP TELEPHONY MARKET

Internet Protocol telephony (IP telephony), or voice over IP (VOIP), referred to voice calls that were transmitted over an IP network such as the Internet, rather than over the familiar circuit switched telephone network (PSTN). In a PSTN, telephone calls were routed based on a destination number and the geographical location of the called user. Thus, in a circuit switched network, first a connection was established before a call can begin. The topology of the telephone operator owned network dictated how calls were routed.

In the IP process, data were packetized, sent to a specific IP address and then reassembled at the destination. Packets were routed and rerouted through network hosts without a predetermined route until they arrived at the destination. Thus, no given package had to take the same route or to use the same network as the other associated packets. As such, IP-based communication did not require a proprietary infrastructure. However, since IP was a connectionless protocol, data corruption, out-of-order delivery of the packets or lost packets were common occurrences. While those effects could be mitigated through transmission of redundant packets, it provided challenges for the time critical delivery of voice data.

IP telephony evolved parallel to the Internet. In the late 1970s, experiments to transmit voice over ARPANET, the predecessor of the Internet, were undertaken. While these experiments demonstrated the capabilities of IP telephony, only some of the few individuals with access to ARPANET used these applications. The end user

¹ The authors have prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. It is not intended that statements herein be excerpted as fact outside of the class discussion.

² For access to the teaching note please email Sascha Vitzthum at sascha_vitzthum@bus.emory.edu

adoption of the WWW, fueled by the availability of the Netscape browser in 1995, led to the development of commercial VOIP applications.

Early Commercialization

Released in March 1995, VocalTec's InternetPhone was one of the first VOIP software applications available to the public. Priced at USD 49.99 for two licenses, the software allowed free PC-to-PC calls between users who had installed the software client. The application included features such as a user-friendly interface, chat capabilities, collaboration tools such as white boards, and a directory of users online [Keating 1996].

While the client was quite sophisticated for its time, there were several technical hurdles that prevented mainstream adoption of the InternetPhone application and IP telephony in general. First, VOIP required high bandwidth to achieve satisfactory sound quality. At the time, most end users connected to their Internet Service provider via 14.4 or 28.8 Kbit modems. The most common approach to counter the bandwidth restrictions was to compress the packets. However, the early compression standards required processing power that most PCs could not provide at the time. Moreover, the lack of standard interfaces for auxiliary devices such as soundcards, more often than not led to compatibility issues.

The result of these early hurdles was a subpar user experience. The lack of bandwidth and processing power led to delays in the transmission and lost packages. Most of the time, only one user could speak; pauses during the conversation were the norm. However, despite the low quality of service, certain applications, such as overseas calling led to adoption. One early adopter summarized his IP telephony experience in 1996:

VocalTech (Internet Phone) and maybe half a dozen other outfits are offering phone-like service over the Internet. Right now it's a bit like ham radio. But it's very intelligible and very usable as a social medium and even for business. Which am I going to opt for—the kind of quality that lets me hear a pin fall in the background for about \$100 an hour to talk to someone in Europe, or just enough quality at no charge beyond what I pay my Internet access carrier (about 30 cents an hour). [Seltzer 1996]

In the fall of 1996, a major step toward improving the quality of IP communications was undertaken. At that time, the ITU-T, the telecommunications standardization sector sanctioned by the United Nations, approved the H.323 standard as the international standard for multimedia communications over packet-based networks. The standard adoption had three major outcomes. First, it minimized hardware configuration issues that had slowed adoption of VOIP services in the past. Second, the unified standard allowed connections between the formerly separate software clients, increasing the network of users that could call each other. Third, and most importantly, H.323 also provided a gateway to the PSTN network, allowing for PC to landline calls.

Net2Phone was one of the first companies to take advantage of the new standard. In 1997, it added PC-to-Phone services to its existing PC-to-PC service. By 1999, Net2Phone was the clear market leader in the VOIP market, claiming 1.5 million registered users. Despite being unprofitable at the time, the company received investments by Softbank and AOL. The initial public offering in July raised USD 80 million for 12 percent of its shares followed by the sale of an equal share for USD 384 million just five months later. Despite its success with the capital markets, Net2Phone never managed to live up to its promises. 2003 was the first profitable year for Net2Phone. By then the market capitalization had dropped to less than 5 percent of its initial value [2004].

Several factors led to the demise of Net2Phone. From a market perspective, the Internet bubble had burst and investors were shying away from unprofitable companies. More importantly, users never switched to making VOIP calls, despite the potential cost savings. From a user perspective, calling from the PC was still inconvenient. Starting up the PC, plugging in the microphone and dealing with an unaccustomed user interface, did not lend itself to making a quick phone call [Wong 2003]. Moreover, broadband Internet, a major factor in VOIP quality, was only starting to be adopted in U.S. households.

By 2003, the VOIP market in the U.S. was highly segmented. There were numerous niche providers of PC-to-PC services that allowed their users to call each other. Also, MSN and Yahoo had equipped their Instant Messengers with voice capabilities. However, there was still a lack of interoperability between networks, leading to the inconvenience of having to use multiple clients to reach various contacts. In the PC-to-Phone segment, Vonage had become the new market leader. The Vonage service was marketed as a landline replacement, by offering hardware that would work independently of a software client and that could utilize existing telephones. However, pricing similar to existing PSTN contracts and the varying call quality only led to modest adoption. By 2003, only 150,000 paying Vonage subscribers were active [2005].



Skype SA

Skype SA was the brainchild and second startup of Niklas Zennström and Janus Friis. Rather than focusing on a specific market, they focused on the possibilities of peer-to-peer (P2P) technology. In 2004, Zennström recollected: "When Janus and I started [...] our vision was that peer-to-peer technology was kind of a fundamental technology that could be used for a whole lot of different business areas [Oakes 2004]."

Their first venture was Kazaa. After the legally induced demise of Napster for providing a centralized database that listed the locations of copyrighted files, Kazaa soon became the peer-to-peer (P2P) file-sharing network of choice. It gained popularity since it was completely decentralized and outside the reach of U.S. authorities, being headquartered in the Netherlands. Much like Napster, it enabled its users to search, share, and trade digital assets such as documents, music, and movies. By the fall of 2001, Kazaa had more than 5 million users.

Kazaa did not earn money from the actual trades but by bundling its client software with Adware and Spyware such as Cydoor or Webhancer [Cave 2001]. Yet the music industry argued that Kazaa indirectly profited from the infringement committed by its users and sued Kazaa. Under tremendous legal pressure and with costs mounting, Zennström and Friis knew they had to move on. In January 2002 the pair sold Kazaa for \$500,000 to Sharman Networks, a company incorporated in Vanuatu in the South Pacific. "To make it work, we would have had to be very savvy about the music business, and that was not our strength," says Zennström. "So we thought, 'Let's try the next incarnation of this' [Ferozhar and McGinn 2005]." The lessons from the Kazaa experience were clear: To turn their deep knowledge of P2P technology into a commercially successful venture, they needed to have a clear-cut revenue model that would steer clear of legal trouble.

In the summer of 2002, the two decided to tackle the USD 1 billion communications industry. They formed the ambitious goal of providing a free and easy-to-use application that would enable users to have free telephone conversations over the Internet, eventually replacing landline phones. Being backed by small venture capital investments and supported by the same programming group that aided them to create Kazaa, they started their new venture in a small office in Luxembourg.

Within a year, the first beta version of their software was launched, enabling PC-to-PC telephony. Radically different from the traditional telecommunication companies, Skype incurred hardly any infrastructure-related fixed costs. By using VOIP, they utilized the free Internet infrastructure, and by deploying P2P distribution, they used the idle computing resources of their users rather than their own expensive servers.

The first beta version was launched in 2003, enabling only PC-to-PC telephony. Less than two months after the release of the first beta version, more than 1.5 million users had downloaded the Skype application. Within a year, this number had risen by over 100 million with more than 1.2 billion PC-to-PC voice minutes served. More importantly, in July 2004, Skype finally started to generate revenue by introducing the paid-for PC-to-Phone service branded SkypeOut. Priced between USD .02 per minute, for calls to landlines in mature telecommunication markets, to USD 1.46 per minute to calls to East Timor, more than 2 million SkypeOut calls were undertaken in the first month alone [Zennström 2006].³ By March 2005, more than 1 million customers had purchased and used SkypeOut. In June 2005, Skype added two more premium services: SkypeIn (a virtual local number that enables landline users to call the Skype user) and Voicemail. The second anniversary of the initial product launch revealed staggering numbers [2005b]:

- More than 150 million downloads in 225 countries and territories
- More than 51 million people registered users (150,000 new users per day)
- More than 12 billion minutes served (equating to more than 45 percent of all U.S. VOIP traffic)
- More than 2 million people created accounts for Skype's paid services

Besides its core business, Skype also developed a vast network of thousands of partners and developers building hardware and software products, as well services around the Skype experience.

At the time of the acquisition Skype was still an unprofitable business. Revenue had increased from an estimated USD 7 million in the first year to nearly USD 60 million in the fiscal year of 2005. Gross margin was estimated at about 18 percent of the revenues, mainly due to the high cost of the landline connection fees [Blodgett 2007a]. However, Skype had managed to develop a successful product and become the VOIP market leader in the course

³ Please refer to Table 4 in the Appendix for a list of sample SkypeOut prices

of two years, using only USD 35 million in venture capital. It did not take long for the traditional telecommunication companies and other interested players to notice this exponential growth fueled by viral marketing of a great service.

III. EBAY INC

Founded in 1995, eBay Inc. had become a global powerhouse of online marketplaces, acting as a broker to facilitate transactions between buyers and sellers across a wide range of goods and services. What began as an auction site for collectibles had developed into a wide spectrum of possibilities across virtually every product category imaginable.

In 2005, the two pillars of eBay's business were the eBay marketplace and the PayPal payments unit. The eBay management described its role in the marketplace as that of a "trading platform":

[eBay] marketplace exists as an online trading platform that enables a global community of buyers and sellers to interact and trade with one another. Our role is to create, maintain, and expand the functionality, safety, ease-of-use, and reliability of our trading platform while, at the same time, supporting the growth and success of our community of users. [eBay Inc. 2005]

The eBay platform included software tools and services that allowed buyers and sellers to trade with one another more easily and more efficiently. Software tools and services helped automating the selling process and aided in the shipment process. Moreover, PayPal facilitated the online exchange of funds and provides fraud protection.

	2002	2003	2004
U.S. Marketplace	718,239	1,024,915	1,338,715
International Marketplace	297,485	657,874	1,157,472
Payments (PayPal)	93,303	429,453	680,813
Total net transaction revenues	1,109,027	2,112,242	3,177,000
Advertising and other revenues	105,073	52,854	94,309
Total net revenues	1,214,100	2,165,096	3,271,309

Aside from internal improvements driven by its vast community, eBay relied on external partnerships and acquisitions both to improve the transaction experience and to increase its share of transaction fees. Services such as the global payments platform, trust and safety programs, user verification, buyer protection and assurance programs, postage and other shipping services, vehicle inspections, escrow, and authentication and appraisal services were intended to create a faster, easier, and safer trading environment.

Business Model and Investment Strategy

Meg Whitman, the CEO of eBay Inc. at the time of the acquisition, had long held the notion that eBay's core competence was the connection of buyers and sellers [2006]. The marketplace initially connected parties in an auction format for used or overstocked items. With eBay Express, sellers and buyers of new items were connected. In the same vein, PayPal provided a platform where parties can facilitate transactions, regardless of their actual bank accounts or preferred currency.

PayPal, acquired in 2002 for USD 1.5 billion, was both the most expensive and most influential of eBay's investments. At the time of purchase in July 2002, PayPal account holders numbered 16 million, with 295,000 payment transactions taking place every day. Moreover, an estimated 25-to-40 percent of transactions taking place on eBay were settled through PayPal [Kane 2002]. By the end of 2004, PayPal had become an integral eBay business model, contributing nearly 20 percent of total net revenue and posting more than one-third of its 64 million accounts as active.

Although the eBay marketplace was the preeminent auction site on the Web, eBay had extended its business model beyond market matching and transaction facilitation. By 2005, eBay had also made numerous investments in the sales-lead business, such its 25 percent ownership of craigslist.com (a free classified site), the acquisition of Shopping.com (price comparison portal), and Rent.com. While the eBay portfolio seems diversified, all investments were targeted to either create sales leads prior to a transaction (shopping.com) or to remove friction from the transaction (PayPal), which aimed to strengthen the core business of the marketplace by increasing the volume of transactions, by growing the revenue share of the conducted transactions, and by making transactions more efficient and convenient.



While those investments showed promise to grow eBay in the long run, it also became clear that eBay needed to find more innovative and disruptive technology to continue the streak of growing net revenue at nearly 50 percent annually.

IV. THE ACQUISITION OF SKYPE

In 2005, the VOIP industry became the target of heavy private investment and takeover speculation. Fueled by the market penetration of broadband Internet, Vonage Inc. had surpassed the 1 million subscriber mark by early September and had secured more than USD 600 million in private funding. Yahoo Inc. also invested in the VOIP business, buying Dialpad and its 14 million customer base for an undisclosed amount. Moreover, Google refrained from buying an external provider, instead introducing GoogleTalk in late August.

Skype SA was rumored to be a target for all the aforementioned companies [Kewney 2005]. The potential suitors viewed acquisition of Skype SA as a preventative move which would certainly hurt the companies that failed to buy the VOIP market leader. However, Zennström did not simply want to sell Skype and see the company dismantled by its suitor. He favored a solution where Skype would be acquired but could still operate as a stand-alone company:

You've seen it so many times when technology companies are acquiring small companies and one year after you don't see those companies anymore because they got completely dismantled. This happens like when Cisco, or Microsoft or some other company is acquiring companies. We said Skype needed to be a separate company so that you can still foster the growth and the innovation of the company but we should take advantage of synergies when we have them. [Steinberg 2006]

When eBay approached Skype SA, Zennström saw the chance to fulfill his vision, drawing parallels to PayPal. PayPal had developed into the premier payment-processing provider by utilizing both the eBay marketplace transactions and developing its merchant services for independent e-commerce merchants. Thus, PayPal had the best of both worlds: It leveraged eBay's platform to grow its network, which in turn made it more attractive for merchants to adopt PayPal payment processing.

eBay's management also was intrigued by the striking similarities. Just like eBay and PayPal in their early days, Skype posted tremendous growth numbers fueled by viral marketing and the concurrent network effect. Moreover, Skype was already the market leader in VOIP communication service provisions, and its paid services were just starting to take off. Thus, the business would be able to sustain itself without further subsidies. In addition to being a successful stand-alone business, eBay could also foresee vital synergies if the acquisition occurred. Skype could augment eBay in two dimensions: volume and network effects across the subsidiaries.

Two key areas were expected to increase eBay's transaction volume: the increased user base and the establishment of lucrative high-priced auctions. Skype had a user base that was strikingly complementary. With 84 percent of Skype users registered outside the U.S. and, according to Nielsen NetRatings, with an only 1 percent overlap of eBay U.S. and Skype users, there was a ready-made customer network of 50 million potential eBay users that was growing by 150,000 every day. Besides the European contingent, Skype users were mainly located in fast-growing economies such as India, China, and Russia where eBay or any other online marketplace had yet to become a dominant force. Through Skype, the penetration in those markets could be accelerated. In addition, eBay also envisioned that live or open-cry auctions would be enabled through the Skype voice and one-to-many video conferencing technology. In the same vein, it was anticipated that high price and communication intensive categories such as art and antiques would increase.

Second, Skype's integration was anticipated to foster cross-marketing among the different eBay brands. The management envisioned that Skype could be integrated into eBay auctions to facilitate more intimate communications. Moreover, with PayPal already accounting for roughly 20 percent of Skype's transaction processing, a money-wire per call or integrated paid-call service model was easy to conceive. Lastly, the Skype integration also was seen as vital to strengthening the sales-lead and classified business.

eBay proceeded with the acquisition process by offering a two tiered deal that was accepted by the Skype SA shareholders in October 2007. The first part of the offer included an immediate purchase price of USD 2.6 billion, payable in eBay stocks. In addition, a performance based earn-out was negotiated. If Skype would achieve undisclosed performance metrics over the next four years, the Skype owners could receive an additional USD 1.7 billion. Moreover, key Skype personnel had to commit to work for the newly formed eBay subsidiary for the next few years.

In an investor conference call following the acquisition announcement, ebay's CEO at the time, Meg Whitman, summarized that:



Communications is at the heart of e-commerce and community. By combining the two leading e-commerce franchises, eBay and PayPal, with the leader in Internet voice communications, we will create an extraordinarily powerful environment for business on the Net [Neilan and Belson 2005]. [which will deliver] unparalleled e-commerce and communications engine [by] removing a key point of friction between buyers and sellers. [Broache 2005]

While Whitman's predictions were enthusiastic, the market voiced a more skeptical opinion.

Reactions to the Acquisition

The reactions to the acquisitions were mixed at best. In the week after the announcement, eBay shares fell nearly 4 percent [2005a]. Besides the heavy price tag of USD 2.6 billion (plus a potential USD 1.7 billion in performance earn-outs), the distancing from the core business was the main concern voiced by analysts and industry experts. Industry observers were quick to observe that most of the previous investments were led by the needs and feedback of the users [Hof 2005]. One reason to purchase PayPal, despite the previous USD 100 million investment in BidPay, was its user acceptance. Powersellers voiced their concern that Skype neither added to existing capabilities nor would change the way they conduct business on eBay [Berr 2005]. John Hagel went as far as questioning eBay's core business by proclaiming that Skype was just another high-multiple purchase that would divert from the marketplace's slowing growth and saturation, resembling purchases undertaken at the height of the Internet bubble. He further doubted whether a partnership would have been a cheaper and more reasonable alternative to the acquisition [Hagel 2005].

While the synergy and network effects were generally dismissed, support of the acquisition persisted. Martin Geddes, a telecommunications analyst, noted that it was simply an attack at another industry that generated huge revenues while lacking to innovate:

Just like PayPal was a business model that disrupted the banking industry, the acquisition of Skype is eBay's attempt to take its slice out of the telecommunications companies' revenues using an innovative technology. [Geddes 2005]

V. QUESTIONS

1. How have the IP telephony market and the service offerings changed in the last 10 years?
2. Why should eBay buy Skype when it can lease it?
3. Why would eBay pay so much (USD 2.6 billion plus a potential USD 1.7 billion earn-out)?
4. What service possibilities arise from the integration of eBay-Skype-PayPal?

PART B:

Skype has been an incredible adventure and I am proud to have been part of it. Looking back at 2003, at two guys running around with a crazy idea of building a global phone company purely on the Internet, moving from one rented apartment to another, still battling a major lawsuit from our Kazaa days, 2003 seems a long time ago. It is amazing to think that it is only four years!

Janus Friis – Co-Founder of Skype SA, October 1, 2007

I. INTRODUCTION

October 2007 marked both the fourth anniversary of the release of Skype's first public beta and the second anniversary of eBay's acquisition of Skype SA. It also was a month of change and reassessment of the progress of the Skype integrations as the third pillar of eBay's business model.

The month started out with the announcement that co-founder Niklas Zennström would leave eBay to focus on his newest startup, Joost, and his venture capital company, Atomico. On the same day, eBay also announced that the Skype shareholders would receive USD 530 million in earn-outs, which was roughly one-third of the maximum payout of USD 1.7 billion that was negotiated during the Skype acquisition two years earlier.

Later that month, eBay also reported its third-quarter earnings, which showed growth in Skype's revenue and user base as well as profitability for the third straight quarter. The month was capped with announcements of Skype's final integration into all categories of the eBay marketplace, an integration of Skype into MySpace, and an integration of Facebook content into the Skype client. Yet, despite the growing success of Skype, eBay also announced a goodwill write-off of USD 900 million, which decreased Skype's book value to USD 2.2 billion and led to eBay posting the first unprofitable quarter in more than eight years.

Were the pessimistic predictions that many industry observers voiced two years earlier coming true?

II. ZENNSTRÖM RESIGNS AS CEO OF SKYPE

As with most serial entrepreneurs, it was expected that Zennström would leave eBay at some point in time. While the original earn-out period was scheduled for four years, Zennström had more interest in pursuing his newest venture. He envisioned changing TV distribution the same way Skype had changed the telecommunications industry. Thus, IPTV became the new focus. Simply put, leveraging the P2P distribution to provide Internet Television on steroids. The name of the fledgling company was appropriate: *Joost* (pronounced "juiced").

In fact, the announcement of his departure coincided with the public release of the Joost Beta version. While most of the industry observers equated the smaller earn-out as a sign of Skype failing to meet its growth and revenue expectations, it was nothing short of remarkable to have sold a company for more than USD 3.2 billion after only four years of market presence. Co-founder Janus Friis put the "failure" in perspective:

Earn-outs are inherently difficult creatures, but we are happy with the result of this one. We are approximately half way into the earn-out period and the settlement amounts to one-third of the total possible earn-out amount. [Friis 2007b]

Despite the fact that the lofty expectations toward Skype's performance were not met, the growth in revenue and user base was still remarkable. Since its acquisition two years earlier, Skype had nearly quintupled its registered user base to over 240 million. Also, revenue for the fiscal year of 2007 was expected to exceed USD 400 million, which was an increase of more than 650 percent compared to the year of the acquisition [Schonfeld 2007]. In addition, Skype had managed to become profitable for every quarter in 2007 [eBay Inc. 2007]. The eBay management was quick to add that Zennström move to the position of non-executive chairman of Skype would not change the long-term strategy of the subsidiary [Musich 2007].

III. GROWING SKYPE AS A STAND-ALONE BUSINESS

In its two years as an eBay subsidiary, Skype management had focused key drivers for growing its user base: further accelerating the viral adoption of the client and continuously releasing new software clients to adapt to the users' evolving needs.

Accelerating the Viral Growth

On a global scale, Skype continued the exponential growth of its user base. Since the acquisition, the number of registered users increased from 50 million to nearly 250 million. The growth was mainly attributed to the viral power

of Skype. Yet, on a regional basis, Skype adoption varied. While Europe and Asia posted strong growth rates, the U.S. was lagging behind. To increase the popularity of Skype in North America, the company offered free SkypeOut calls within the U.S. and Canada from spring 2006 until the end of the year. Yet, as SkypeOut minutes increased by 40 percent over that time span, the revenue share of U.S. users did not rise during the promotional period or in the first three quarters of 2007.

Enhancing the Software Client

The second driver of user growth involved introducing new features and fostering innovation of complementary hardware accessories. With Version 2.0, released in December 2005, Skype introduced video conferencing. Initially only employed for one-to-one calls, the feature evolved, creating the new capacity for one-to-many SkypeCasts. In May 2006, Skype 2.5 enhanced this feature enabling many-to-many video calls, thus evolving into a cheap alternative for global videoconferences. This version also incorporated SMS for as little as USD .01 as an attempt to tap into the USD 40 billion text messaging market [2008a]. Skype 2.5 also introduced better usability features such as the automated import of email contacts and categorization of contacts into groups.

Staying on pace to release an overhauled version every six months, the Beta version of 3.0 became available in November 2006. Most of the features, such as personalization of the client and design overhauls, were usability-oriented. To further foster SkypeOut calls, 3.0 also included browser integration by offering its “click to call feature,” which recognized phone numbers displayed on Web pages, automatically converting them into a direct link that would launch a SkypeOut call upon a click. The latest version was geared towards features that would mimic modern telephone systems. Version 3.5 included features such as call transfer, automatic redial, and the integration into MS Outlook, all clearly targeted at business users.

Setbacks of Growth and Continuous Innovation

The growing popularity also had negative effects. In September 2007, a software worm spread quickly through the Skype network, raising Skype-related security concerns and causing many systems administrators to temporarily block Skype traffic. While the worm did not cause any harm, it was a reminder that Skype had to address security to cater to business clients. This was particularly important after a Skype service outage a month earlier caused severe criticism of how the situation was handled and raised the question of whether Skype really was a reliable landline replacement [Blodget 2007b].

Despite the setbacks, the new features were embraced by the user community. On average, half a million clients were downloaded every day, amounting to more than 700 million total downloads of the different Skype clients by the end of October 2007. At the same time, Skype also was able to eclipse the mark of 10 million concurrent users, increasing by tenfold the 1 million concurrent users it had only three years earlier [Mercier 2007].

An eBay spokesperson summarized Skype’s performance: “We feel like we can do a lot more with Skype as a stand-alone VoIP provider. Skype has been focused on user acquisition and it’s done a great job. But we also feel like we can find new ways to monetize those users” [Reardon 2007].

IV. GROWING THE REVENUE

Soon after the 2006 promotional period of free SkypeOut calls in North America ended, Skype introduced a new pricing structure and features to grow the VOIP revenue per user. In January 2007, Skype changed the SkypeOut pricing structure by adding a connection fee of USD .045 for every call placed. At the same time, it also offered SkypePro, which included a lower per-call fee and discounted fees on features such as SkypeIn and voicemail, but required a monthly subscription fee of USD 3. There were a few outcries about the changing pricing structure, but despite the expected drop-off from users who only used SkypeOut while it was free, paid voice minutes grew proportionally to the number of users added [Friis 2007a]. However, in fall 2007, evidence emerged showing that the usage of SkypeOut was declining. Despite the continuous growth of the user base, the total number of SkypeOut minutes had stagnated at 1.4 billions in each quarter in 2007. One industry analyst noted that “Skype’s core business isn’t much different from a really cheap calling card business. The margins are really thin” [Reardon 2007].⁴

To diversify revenue streams, Skype introduced other telephony services and pricing packages. SkypeUnlimited was offered as a flat rate for in-country calls for a monthly flat fee of USD 3. SkypeFind, a directory listing service, was introduced as a platform for premium calls that were usually associated with 0900 numbers. SkypePrime enabled service providers to set their own price for offerings such as consulting that could be conducted via the Skype client.

⁴ Please refer to Table 2 in the appendix of the revenue cost structure of IDT Corp, the worlds leading provider of calling card based voice traffic

In addition to internal developments, Skype actively promoted third-party services and products in an effort to further increase the paid voice and licensing revenues.

From a financial perspective, Skype slowly picked up steam. The first three quarters of 2007 were all profitable. The revenue had steadily grown and was expected to be close to USD 400 million in the 2007 fiscal year. However, there were also signs that the monetization per user did not seem to increase. On average, every registered user had only generated approximately USD .40 per quarter since 2006. Also, not only did the volume of paid SkypeOut minutes stay flat in 2007, the actual number of free Skype-to-Skype minutes actually declined, raising concerns that after the initial hype, more and more power users were switching to competitive services. (See Table 2 in the appendix for selected financial and usage data.)

Integration Efforts

Synergies with the other eBay business lines were the main justification for the acquisition of Skype. The effort was dubbed “The Power of Three,” indicating that three stand-alone growth businesses could be even more successful if they were integrated across the three businesses. The first integration took place between Skype and Paypal. Touted as a VOIP-enabled “Western Union,” Skype’s version 2.5, released in May 2006, was expected to include functionalities to send and receive payments from contacts with a click of a button. Yet, the feature did not appear until March 2007, raising questions as to why the integration of the already preferred payment provider was taking so long.

The same criticism was voiced over the integration of Skype into the eBay marketplace. Although the Dutch eBay subsidiary marktplaats.nl started a pilot integration in October 2005, eBay was slow to introduce Skype on a global scale [2005c]. After pilots in other European countries, the SkypeMe button, allowing instant calls to the sellers, was first rolled out in selected U.S. categories in June 2006. eBay justified its slow roll out as an adoption experiment citing that it did not want to confuse its sellers with unfamiliar features. Yet the resistance of sellers to use voice features in general seemed also to have played an important role in the decision [Hof 2006]. In fall 2007, Skype finally was integrated into all eBay categories. In the process, eBay also banned all other voice services from its site, stating that only eBay-owned Skype could be used to facilitate marketplace-related voice communication [Steiner 2007].

It was unclear what the results of the delayed integration would be. But it was apparent that eBay was dissatisfied with the slow progress and lack of monetization of synergies. As a result, eBay took a goodwill write-down and reduced the book value of Skype to USD 2.2 billion. In an effort to revamp the efforts to grow the synergies, most of the Skype management was replaced alongside Niklas’ departure [Associated Press 2007]. While internal synergies had yet to materialize, partnerships with third-party providers were starting to flourish.

Third-Party Applications and Accessories

On the accessory side, innovations received an enormous amount of publicity. The announcements of the release of WIFI-enabled phones by Netgear and Keypad were among the biggest Skype-related news items of 2006 [2007]. 3G/ WIFI hybrid Amobi Phone in Europe was an instant sellout. Priced at 100 USD, the phone enabled customers of Hutchinson’s subsidiary 3 UK to take advantage of modest Skype pricing while being within the coverage of a WIFI hotspot. Besides the revenue from the SkypeOut calls, Skype also was expected to receive a share of the regular phone usage and licensing fees.

Moreover, a large-scale roll out of Skype-branded accessories at Wal-Mart was announced in the summer of 2007. While specifics of the deal were not disclosed, it was estimated that Skype commanded a licensing fee of 5 percent of the wholesale price for Skype-branded or Skype-certified hardware products. In addition, prepaid calling cards allowing unlimited PC to landline calls in the North America for USD 8.85 were offered. While the financial gains had yet to materialize, it was assumed that the exposure to Wal-Mart’s large distribution network would open up new customer segments that would use Skype’s paid services rather than just the free services offered by Skype.

Aside from the efforts to increase the monetization of its users, Skype also pushed to expand its range of services. Originally developed as a closed application with a proprietary protocol, the Skype client soon evolved into a programming platform. In 2005, the Skype Developer Zone opened to the public, allowing programmers to develop applications and features by themselves. Available documentation and frequent developer competitions attracted a wealth of volunteer developers. In the three years of its existence, the “Skype sandbox” had much to show. More than 4,000 developers participated, creating more than 350 Skype-enabled applications [Willis 2007].

In fall 2007, Skype announced collaborations with the popular social networking sites Facebook and MySpace. On one hand, Skype integrated popular Facebook games into its clients, giving users the chance to play with their

friends while using Skype. Skype also started to develop games of its own, which it then planned to publish via Facebook. Facebook games had become a hot trend, with users challenging their friends on a daily basis. Skype wanted to leverage that phenomenon for two reasons: to raise the awareness of Skype by displaying its brand name within the games and to put an application launcher onto the Facebook profile of each user that had added the game [Dolcourt 2007].

The MySpace announcement was less subtle. On October 16, 2007, Skype became the official voice provider for the network of 110 million MySpace members. Skype was to be incorporated into the MySpace Instant Messaging client, enabling MySpace users to place free Skype calls to their friends and eventually adopt Skype as their VOIP client of choice for paid services, as well [AFP 2007].

Both efforts were deemed as another attempt to leverage viral effects in social networks and to introduce Skype to a younger and predominantly North American audience. However, given the track record of Skype's integration into the eBay marketplace, it seemed doubtful that the announced partnerships would materialize any time soon.

V. LOOKING INTO THE FUTURE

Skype had gone through a tremendous development in growing its user base, but two years after the acquisition it was challenged to monetize that growth. Several industry observers suggested that Skype's future was in the mobile business, where it could offer competitive rates while earning revenues by licensing its brand name to OEM manufacturers.

In the Internet arena, Skype was facing a VOIP market with continuously eroding margins spurred by new competitive offerings nearly every week. Aside from the established players like Yahoo! Voice, GoogleTalk, and Microsoft's LiveMessenger, upstarts like JahJah and QQ, along with more than 150 VOIP providers, were fighting to lure customers [2008b; Uberti 2007]. With a user base of 250 million, Skype was confident that the client would soon be synonymous with VOIP communication, evolving into a de facto standard. However, the lack of interoperability with the other networks was a concern for industry observers.

Another question was whether Skype could capitalize on the growing advertising business. While eBay initially only foresaw integration of its own businesses, there didn't seem to be a good reason why ads should not be served through the client. Yet, it appeared that eBay lacked the capabilities to place context-related ads and was reluctant to partner with competitors Google or Yahoo! to make this business line a success.

As for the integration with the other eBay businesses, the predictions were not really clear. EBay's recent foray into social commerce by creating more social network communities around specific categories did not seem to directly involve the Skype application. But then again, maybe lowering expectations might be a good strategy this time around...

VI. QUESTIONS

1. Evaluate the performance of Skype since the acquisition.
2. In retrospect, how would you evaluate the strategic move to acquire Skype and the price paid for it?

REFERENCES

EDITOR'S NOTE: The following reference list contains the address of World Wide Web pages. Readers, who have the ability to access the Web directly from their computer or are reading the paper on the Web, can gain direct access to these references. Readers are warned, however, that:

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2004. "Call Waiting." *The Institutional Investor* Retrieved 04/15, 2008, from <http://www.kayakcommunications.com/pdfs/InstitutionalInvestor.pdf>.
- 2005a. "Chart of ebay Stock Price (09/12/05-09/19/05)." *finance.yahoo.com* Retrieved 04/16, 2008, from <http://finance.yahoo.com/charts#chart1:symbol=ebay;range=20050912,20050919;indicator=split+dividend+volume;charttype=line;crosshair=on;ohlcvvalues=0;logscale=on;source=undefined>.
- 2005b. "Skype Opens Its Platform to the Web." *Skype.com* Retrieved 04/15, 2008, from http://about.skype.com/2005/08/skype_opens_its_platform_to_th.html.
- 2005c. "Skype/Ebay Integration Pilot—Netherlands." *Skype.com* Retrieved 10/30, 2007, from <http://forum.skype.com/index.php?showtopic=36607>.
2006. "Interview Transcript: Meg Whitman, ebay." *Financial Times* Retrieved 04/15, 2008, from <http://www.ft.com/cms/s/2/f3ae81f8-fef8-11da-84f3-0000779e2340.html>.
2007. "Google Trend, Keyword: Skype." *google.com* Retrieved 04/15, 2008, from <http://www.google.com/trends?q=skype&ctab=0&geo=all&date=2006&sort=0>.
- 2008a. "The Story of Sms Global Market Development." *Communicate* Retrieved 01/07, 2008, from <http://www.huawei.com/publications/view.do?id=279&cid=94&pid=61>.
- 2008b. "VoIP Provider World Ranking." *myvoipprovider.com* Retrieved 04/15, 2008, from <http://www.myvoipprovider.com/index.php?option=content&task=view&id=92>.
- AFP. 2007. "MySpace Enhanced with Skype Telephony." *afp.google.com* Retrieved 04/15, 2008, from <http://afp.google.com/article/ALeqM5gLZEQCYN1lw50TK0Ac0BsPux4Tyw>.
- Associated Press. 2007. "ebay Reorganizes Its Skype Division." *msnbc.com* Retrieved 01/29, 2008, from <http://www.msnbc.msn.com/id/21358556/>
- Berr, J. 2005. "Big ebay Users Shun Skype." *TheStreet.com* Retrieved 04/14, 2008, from <http://www.thestreet.com/tech/jonathanberr/10255122.html>
- Blodget, H. (2007a). "Analyzing Skype," *Internetoutsider.com* Retrieved 04/15, 2008, from http://www.internetoutsider.com/2007/02/analyzing_skype.html.
- Blodget, H. (2007b). "Skype's Lesson in Awful Crisis PR," *Silicon Alley Insider* Retrieved 01/07, 2008, from <http://www.alleyinsider.com/2007/08/skypes-lesson-i.html>.
- Broache, A. (2005). "ebay to Nab Skype for \$2.6 Billion," *CNET* Retrieved 01/22, 2008, from http://www.news.com/eBay-to-nab-Skype-for-2.6-billion/2100-1030_3-5860055.html.
- Cave, D. (2001). "The Parasite Economy," *Salon.com* Retrieved 03/14, 2007, from http://archive.salon.com/tech/feature/2001/08/02/parasite_capital/index.html.
- Dolcourt, J. (2007). "Skype Rolls the Dice with Facebook Games," *CNET* Retrieved 11/07, 2008, from http://www.news.com/8301-10784_3-9807756-7.html.
- eBay Inc. (2005). "2005 Annual Report/Form 10-K," *Investor.ebay.com*, from <http://investor.ebay.com/downloads/2004Annual/AnnualReport2004.pdf>.
- eBay Inc. (2007). "ebay Inc. Announces Third Quarter 2007 Financial Results," *shareholder.com* Retrieved 01/07, 2008, from <http://files.shareholder.com/downloads/ebay/191770868x0x137793/9ca4f98a-1fb8-4559-8a63-22fc4ce23b8b/EBAY1017a.pdf>.
- Foroohar, R., and D. McGinn. (2005). "Hyped over Skype," *Newsweek.com* Retrieved 04/15, 2008, from <http://www.newsweek.com/id/51059?tid=relatedcl>.

- Friis, J. (2007a). "The New Pricing Structure, What's Next, and What to Make of It All," *skype.com* Retrieved 10/30, 2007, from http://share.skype.com/sites/en/2007/01/the_new_pricing_structure_what.html.
- Friis, J. (2007b). "(Not) Just Another Monday," *janusfriis.net* Retrieved 01/06, 2008, from <http://www.janusfriis.net/2007/10/01/not-just-another-monday/>.
- Geddes, M. (2005). "ebay and Skype: Back to Basics," *skypejournal.com* Retrieved 01/15, 2008, from http://skypejournal.com/blog/archives/2005/09/ebay_and_skype.php.
- Hagel, J. (2005). "ebay and Skype," *edgeperspectives.typepad.com* Retrieved 04/15, 2008, from http://edgeperspectives.typepad.com/edge_perspectives/2005/09/ebay_and_skype.html.
- Hof, R. (2005). "Why ebay Is Buying Skype," *BusinessWeek* Retrieved 04/01, 2008, from http://www.businessweek.com/the_thread/techbeat/archives/2005/09/why_ebay_is_buy.html.
- Hof, R. (2006). "Skype's Post-Hype Future," *BusinessWeek* Retrieved 10/29, 2007, from http://www.businessweek.com/technology/content/jun2006/tc20060613_780321.htm?.
- Kane, M. (2002). "ebay Picks up PayPal for \$1.5 Billion," *CNET* Retrieved 03/12, 2008, from <http://www.news.com/2100-1017-941964.html>.
- Keating, T. (1996). "Internet Phone Release 4," in: *CTI for Management*. pp. 28-32.
- Kewney, G. (2005). "Who Will Buy Skype? Yahoo!? Or Google? Or Rupert Murdoch?" *theregister.co.uk* Retrieved 01/05, 2008, from http://www.theregister.co.uk/2005/08/08/skype_suitors/.
- Mercier, J. (2007). "+2.5 % This Week!" *skypenumerology.com* Retrieved 11/01, 2007, from <http://skypenumerology.blogspot.com/2007/10/25-this-week.html>.
- Musich, P. (2007). "Skype Co-Founder Zennström Bows Out," *eweek.com* Retrieved 01/07, 2008, from <http://www.eweek.com/c/a/VOIP-and-Telephony/Skype-Cofounder-Zennström-Bows-Out/>.
- Neilan, T., and K. Belson. (2005). "ebay to Buy Internet Phone Firm for \$2.6 Billion," *The New York Times* Retrieved 01/22, 2008, from http://www.nytimes.com/2005/09/12/technology/12cnd-ebay.html?_r=2&ei=5070&en=5876a44a80eb24ad&ex=1181102400&oref=slogin&pagewanted=print.
- Oakes, C. (2004). "Something out of Nothing: New Venture for Kazaa Founder," *International Herald Tribune* Retrieved 02/01, 2008, from http://www.ihf.com/articles/2004/01/26/skype_ed3_.php.
- Reardon, M. (2007). "ebay: What to Do with Skype?" *CNET* Retrieved 10/30, 2007, from http://www.news.com/eBay-What-to-do-with-Skype/2100-7352_3-6211053.html.
- Rojas, P. (2005). "The Engadget Interview: Michael Robertson, CEO of Sipphone," *Engadget.com* Retrieved 02/28, 2008, from <http://www.engadget.com/2005/09/12/the-engadget-interview-michael-robertson-ceo-of-sipphone/>.
- Schonfeld, E. (2007). "What Was Skype's Shortfall?" *Techcrunch.com* Retrieved 01/19, 2008, from <http://www.techcrunch.com/2007/10/22/what-was-skypes-shortfall/>.
- Seltzer, R. (1996). "Just Enough Quality," *samizdat.com* Retrieved 04/15, 2008, from <http://www.samizdat.com/enough.html>.
- Steinberg, D. H. (2006). "Web 2.0 - after Dinner with Niklas Zennström," *O'Reilly Network* Retrieved 01/10, 2008, from <http://www.oreillynet.com/pub/a/network/2006/12/13/web-20-Zennström.html>.
- Steiner, I. (2007). "ebay Manages Expectations on Skype Expansion," *AuctionBytes.com* Retrieved 11/23, 2007, from <http://www.auctionbytes.com/cab/abn/y07/m11/i01/s04>.
- Uberti, J. (2007). "Usage Stats from the Major Im Networks," *juberti.blogspot.com* Retrieved 04/15, 2008, from <http://juberti.blogspot.com/2007/02/usage-stats-from-major-im-networks.html>.
- Willis, D. A. (2007). "Why ebay Was Both Right and Wrong about Skype." *Gartner Research* Retrieved 01/31, 2008, from http://www.gartner.com/resources/152400/152465/why_ebay_was_both_right_and__152465.pdf.
- Wong, W. (1999). "Net2phone Rings in with Netscape Deal," *CNET* Retrieved 04/29, 2008, from <http://www.news.com/2100-1033-222867.html>.
- Zennström, N. (2006). "Skype Celebrates 1 Year Anniversary," *Skype.com* Retrieved 04/15, 2008, from http://about.skype.com/2004/08/skype_celebrates_1_year_annive.html.

APPENDIX

Table 2. Selected Performance and Usage Data of eBay's Communications Subsidiary Skype

	05-Q4	06-Q1	06-Q2	06-Q3	06-Q4	07-Q1	07-Q2	07-Q3
Revenues (USD million)	25	35	44	50	66	79	90	97
(delta millions)		10	9	6	16	13	11	7
(Q/Q)		40%	26%	14%	32%	20%	14%	8%
(Y/Y)						126%	105%	94%
Intl revenue	87%	87%	86%	84%	84%	85%	84%	83%
Estimated US revenue	3.25	4.55	6.16	8	10.56	11.85	14.4	16.49
Direct Contribution (USD million)	-1	-9	-8	-10	-1	3	9	14
User Accounts (million)	75	95	113	136	171	196	220	245.7
(delta millions)		20	18	23	35	25	24	25.7
(Q/Q)		27%	19%	20%	26%	15%	12%	12%
(Y/Y)					128%	106%	95%	81%
Revenue/ Account	0.33	0.37	0.39	0.37	0.39	0.40	0.41	0.39
Skype-to-Skype Minutes (billions)	5.2	6.9	7.1	6.6	7.6	7.7	7.2	6.1
(delta billions)		1.7	0.2	-0.5	1	0.1	-0.5	-1.1
(Q/Q)		33%	3%	-7%	15%	1%	-6%	-15%
(Y/Y)					46%	12%	1%	-8%
SkypeOut Minutes	0.5	0.7	0.9	1.1	1.5	1.5	1.3	1.4
(delta billions)		0.2	0.2	0.2	0.4	0	-0.2	0.1
(Q/Q)		40%	29%	22%	36%	0%	-13%	8%
(Y/Y)					200%	114%	44%	27%
Total Minutes	5.7	7.6	8	7.7	9.1	9.2	8.5	7.5
(delta billions)		1.9	0.4	-0.3	1.4	0.1	-0.7	-1
(Q/Q)		33%	5%	-4%	18%	1%	-8%	-12%
(Y/Y)					60%	21%	6%	-3%

Source: Compiled from eBay earnings release & conference calls, skypejournal.com, and sypenumerology.com

Table 3. Selected Financial Performance and Usage Data for ITD Corp.'s Retail Calling Card Business

(million; in USD except for minutes)	2004	2005	2006	2007
Revenues	1148.1	1220.4	1,194.9	936.7
Direct Cost of Revenues	894.8	955	980.9	750.0
Gross Profit	253.3	265.4	214.0	186.7
Administrative Expenses	239.2	321	194.3	218.0
Net Profit	14.1	(55.6)	19.7	(31.3)
Minutes of Use	15,627.0	17,224.0	16,005.0	11,217.0

Source: IDT Corp SEC Filings (Form 10K)

Table 4. Skype-Related Pricing Information for Top, Median and Bottom 10 Countries Ranked by Annual International Voice Traffic

Country	Rank By Annual International Voice Traffic	Skype Out Pricing for Landline Calls per Minute in USD (2005)	Skype Out Pricing for Landline Calls per Minute in USD (2007)	Skype Out Pricing for Mobile Calls per Minute in USD (2005)	Skype Out Pricing for Mobile Calls per Minute in USD (2007)	Cost of call per minute from Landline Phone to US in USD (most recent)
USA	1	0.0138	0.021	0.014	0.021	0.000
Mexico	2	0.0648	0.099	NA	0.336	0.045
Germany	3	0.0138	0.021	0.162	0.246	0.042
United Kingdom	4	0.0138	0.021	0.166	0.253	0.065
Italy	5	0.0138	0.021	0.203	0.308	0.067
Canada	6	0.0138	0.021	0.014	0.021	0.000
France	7	0.0138	0.021	0.133	0.203	0.068
China	8	0.0138	0.021	0.014	0.021	0.009
Japan	9	0.0154	0.023	0.101	0.154	0.024
Singapore	10	0.0203	0.021	0.020	0.021	0.009
Ghana	74	0.109	0.153	0.100	0.166	0.053
Senegal	75	0.154	0.234	0.172	0.261	0.069
Bahrain	76	0.160	0.243			0.018
Cyprus	77	0.039	0.059	0.067	0.074	0.034
Uruguay	78	0.083	0.126	0.168	0.255	0.048
Bulgaria	79	0.045	0.068	0.174	0.265	0.017
Qatar	80	0.247	0.376	0.249	0.378	0.000
Armenia	81	0.063	0.096	0.168	0.239	0.015
Nicaragua	82	0.142	0.216	0.148	0.225	0.016
Cuba	83	0.674	1.025			0.030
Chad	149	0.206	0.313			0.048
Comoros	150	0.262	0.398			0.046
Afghanistan	151	0.233	0.355			0.020
Montserrat	152	0.170	0.259			0.003
Burundi	153	0.101	0.154	0.093	0.142	0.023
Solomon Islands	154	0.758	1.153			0.030
Central Africa	155	0.129	0.196			0.070
Sao Tome and Principe	156	0.786	1.195			0.037
Rwanda	157	0.126	0.192			0.060
Kiribati	158	0.497	0.756			0.039
Average (All Countries)		0.074	0.110	0.130	0.202	0.031

Sources: Skype.com. World Development Indicators (Most recent data available as of 10/2008)

Table 5. Supplemental Information For Top, Median and Bottom 10 Countries Ranked by Annual International Voice Traffic

Country	Rank of International Call Volume	International Voice traffic in Million Minutes (incoming and outgoing minutes)	Internet Users Per 100	Landline Telephone Subscribers per 100
USA	1	82,061.25	72.9	54.1
Mexico	2	20,141.03	21.7	18.8
Germany	3	15,683.00	51.7	65.3
UK	4	15,600.00	65.9	55.2
Italy	5	13,593.00	53.9	45.6
Canada	6	13,499.57	84.9	64.3
France	7	11,505.00	49.1	55.2
China	8	9,729.91	15.9	27.7
Japan	9	5,921.00	73.6	35.9
Singapore	10	5,427.50	58.8	40.5
Ghana	74	452.87	2.8	1.6
Senegal	75	409.00	6.6	2.2
Bahrain	76	408.16	33.2	26.3
Cyprus	77	405.19	48.3	47.8
Uruguay	78	400.00	29.2	29.1
Bulgaria	79	396.34	52.3	30.1
Qatar	80	393.04	42.0	28.4
Armenia	81	385.76	5.7	19.7
Nicaragua	82	355.11	2.8	4.5
Cuba	83	344.50	11.6	9.3
Chad	149	19.28	0.6	0.1
Comoros	150	18.68	3.4	3.1
Afghanistan	151	15.62	2.1	0.3
Montserrat	152	13.36	12.2	2.2
Burundi	153	10.68	0.7	0.4
Solomon Islands	154	9.65	1.7	1.5
Central Africa	155	8.90	0.3	0.3
Sao Tome	156	8.84	14.6	4.8
Rwanda	157	6.05	1.1	0.2
Kiribati	158	2.24	2.0	4.7
Average (All Countries)		3,978.15	32.2	20.4

Source: World Development Indicators (Most recent data available as of 2007)

ABOUT THE AUTHORS

Sascha Vitzthum is a Ph.D. Candidate in the Information Systems and Operations Management Department at Emory University's Goizueta Business School. He is currently completing his dissertation entitled "Enabling 'On Demand Business'—Essays on Service Oriented Computing Principles, IT Architecture Reconfigurability and Business Performance." His current research interests include the dynamic alignment of service-oriented architecture (SOA) and business strategy, the emergence of enterprise mash-ups, and IS-related privacy issues. He has published in CAIS and the ICIS Proceedings.

Benn R. Konsynski holds the George S. Craft Professor of Decision & Information Analysis at Emory University's Goizueta Business School. His current research interests are issues of digital commerce and information technology in relationships across organizations. He has published in such diverse journals as *Communications of the ACM*, *IEEE Transactions on Communications*, *MIS Quarterly*, *Decision Sciences*, and *Decision Support Systems*.

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