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HP E-SERVICES.SOLUTIONS

The concept behind e-services is there's a particular task, asset, or capability that you want to gain access to, that now can be made available to you over the Net, because it's now being created as an Internet service.

—Linda Lazor, Director of Operations, ESS, Hewlett-Packard

How does any large company reinvent itself? Can a company with a past have a future? I mean that's basically the question that we're posing because a lot of people claim that anyone who has a past does not have a future in this world.

—Nick Earle, President, ESS, Hewlett-Packard

In April 2000, Nick Earle sat in his cube in the Hewlett-Packard (HP) campus in Cupertino, California. He wore a wireless telephone headset that allowed him to wander about his team's open cubes as he fielded calls from potential business partners. Earle, age 42, was President and Chief Evangelist of the 90-person E-Services.Solutions (ESS) group, which had grown out of a task force he had put together more than a year earlier. Asked to create an Internet marketing strategy, he and several other "frustrated radicals" created a plan that led to the ESS group. ESS now held the mandate to develop an Internet strategy and framework for HP.

Earle's team faced tough challenges. They had pulled together some great technologies and products within HP and secured partnerships with other companies, new and old, but could they create a sustainable strategy? Could they act fast enough and reinvent HP for the new economy? Or would they be a forgotten experiment? Earle pondered these questions as he took a call from CEO Carly Fiorina. She asked him to meet with her to discuss the ESS strategy and its new compensation program.

Research Associates Michelle Moore and Cara Snyder, both MBA 2000, prepared this case under the supervision of Professor Garth Saloner as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. Margot Sutherland, Executive Director, Center for Electronic Business and Commerce, Stanford Graduate School of Business managed this case.

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THE HP CONTEXT

Hewlett-Packard Company

HP was a leading manufacturer of computer products, including printers, servers, workstations, and personal computers. In 1999, HP generated revenue of $42.4 billion and net income of $3.1 billion.[1] Most of the revenue was split between printing and imaging ($19 billion) and computing systems ($18 billion); the remainder came from information technology (IT) services ($6 billion). HP was the world's second largest producer of computers after IBM. Since 1995, HP's revenues and net income had grown at compound annual growth rates of 14 percent and 12 percent, respectively (Exhibit 1). It had over 80,000 employees worldwide. However, HP also had a strong local presence in Silicon Valley. Known as Silicon Valley's first "start-up," HP was also the largest employer in the Bay Area in 1999.

The HP Legacy

In 1939 Bill Hewlett and Dave Packard, two Stanford electrical engineers, founded their company in a one-car garage at 367 Addison Avenue in Palo Alto.[2] Their goal was to invent something useful. If the product wasn't useful, it simply didn't leave the garage. In the post World War II era, HP's workforce created many electrical instruments and consumer electronic products, including oscilloscopes, signal generators, and electronic calculators. The company also created its own unique way of doing business: "The HP Way."

The evolution of the HP Way began early. Hewlett and Packard wanted a decentralized management style. Successful product lines became their own divisions. In 1957 Hewlett and Packard met with their key managers to formalize a set of corporate objectives, which, along with underlying corporate values that shaped how the objectives would be met, remained the foundation for "The HP Way." Original practices such as Management By Wandering Around, Management By Objectives, and the Open Door Policy inspired later additions, including Open Communication and Total Quality Control (Exhibit 2).

The HP Way created a unifying corporate culture within a decentralized company. It stressed trust, openness, consensus, and an egalitarian culture. It also resulted in a loyal workforce. Still, HP was known for being very conservative. Decentralization bred turf battles that disrupted growth. A focus on products instead of customer needs diverted resources from growth areas. While decentralization and the HP Way had promised growth when HP was smaller, some of its elements made it difficult to run a $40 billion company.

Recent History

Dave Hewlett and Bill Packard led HP until John Young became president in 1977 and CEO in 1978. Under his watch, HP became a major player in the computer industry, producing a range of computers from desktop machines to powerful minicomputers. HP also embarked on its

[1] Restated to reflect the spinout of Agilent Technologies, HP's test and measurement business.
[2] In 1989 the Addison Avenue garage became a California Historical Landmark and "the birthplace of Silicon Valley."

successful dominance of the printer market, with the launch of inkjet and laser printers that connect to personal computers.

Young managed the business until 1992, when Lew Platt, another insider, succeeded him. Platt was known as a soft-spoken, modest executive who regularly flew coach class on business trips and drove the standard Ford Taurus company car. “There isn't an arrogant bone in his body,” said U.S. Representative Anna Eshoo, who represented Palo Alto, CA, home of HP's headquarters. Ron Gonzales, the mayor of San Jose and a former HP executive, recalled, “What comes to mind when I think of Lew is him going to the cafeteria and grabbing a tray like everyone else did, and then sitting down at a table with employees and just talking with them.”

Under his leadership, HP’s sales grew from $16 billion to $47 billion in 1998. Yet the company failed to meet Wall Street's expectations.[3] Since 1995 HP’s revenue growth rates had declined—from 24 percent, to 12 percent, to 11 percent. By 1998 its stock price hadn’t budged from the $70 range in 18 months (Exhibit 3). HP had cited weakness in Asian markets and price competition in hardware as explanations for the softness, but analysts questioned whether HP had a viable long-term strategy, particularly in the Internet space. As Platt told a reporter "It was a difficult time. We were being heavily criticized, and probably rightfully so, for having missed the Internet market."

By late 1998, Platt realized that HP needed change. First, he proposed to spinout HP’s test and measurement business, which had over $7 billion in annual revenue. Platt later told Fortune:

> HP was beginning to have some of the characteristics of a large company—complexity, breadth, a loss of accountability…[This] just caused us to be not quite as focused as we should have been. I spent a few hours a week on the measurement business. I didn't have a single competitor in the computer business who spent a second a week on such things. We often watered down our message to be sure it included everything we're doing. More focused management time and energy, more focused messages, and greater visibility of the pieces would lead to a better outcome.[4]

By December 1998 HP’s board had approved the spin-off. The new company, Agilent Technologies, went public in the fall of 1999.

Next, Platt reconsidered HP’s core strategy. Because of HP’s decentralized style, no one division owned strategy. Platt hoped to create *one* organization to drive a strategy for hardware, software, and services. In particular, he wanted an Internet strategy. In October 1998, Platt put HP’s corporate software and support division and corporate systems division under one roof. The next month, he chose Ann Livermore to run this new Enterprise Computing Solutions Organization (ECSO), a unit with $15 billion in revenues and 44,000 employees.

Livermore, age 41, had been with HP for 18 years. She chose Nick Earle for her Chief Marketing Officer. Born in Liverpool, England, Earle had joined HP in 1982 and spent his first 14 years in the field in Europe. He had been with HP’s worldwide marketing unit since 1996.

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[3] Includes $7.6 billion of revenue for the test and measurement business, Agilent Technologies.

[4] Lew Platt and Eric Nee, “Lew Platt: Why I Dismembered HP,” *Fortune*, March 29, 1999.

Livermore put Earle in charge of developing a marketing strategy for the enterprise group. HP's competitors, Sun Microsystems and IBM, had launched high-profile Internet marketing campaigns, and Sun had a leadership role in the industry, using the tagline "we put the dot in dot com." Livermore gave Earle until the end of January 1999 to devise a branding plan and encouraged him to think outside of the HP box and take risks: "I really wanted Nick to be a renegade. I told him unless I got three complaints a week about him, he wasn't doing his job."[5]

THE EMERGENCE OF E-SERVICES.SOLUTIONS

Earle assembled a task force of ten "revolutionaries" five from within HP and five from outside it. The HP people came from different functional areas and had varying skill levels, but shared a frustration with HP's slow progress in the Internet. The outsiders recognized an opportunity to recreate an IT icon. A key early hire was Allison Johnson; then at Netscape, she had been the chief architect of IBM's e-business branding campaign. The team locked itself in a room for 30 days to tackle the problem. Earle commented:

> We had a room which is just in that corner [in the middle of the upper floor in Building 44], and we blacked out the windows, we put a lock on the door, basically to keep people out. There are no locks on any doors anywhere in HP but the front doors, and we locked the doors. You couldn't come in to see what was going on.

In the first week, the group concluded that the root of the problem was a marketing weakness. HP was already in the Internet space but hadn't communicated it well. The solution was simple: tell the marketing department to market the facts that HP's OpenView software managed 70 percent of websites and HP's security software handled web transactions for over 120 financial institutions. The group cited proofs of HP's presence in the Internet economy until someone shouted:

> Stop! What the hell are you doing? Who are we trying to convince? All we're trying to do is convince ourselves really. And, so what? Let's say we advertise it. So what? We're still no better an Internet company than Sun, because there is no such thing as a second mover advantage, and it's really scary. There is no second mover advantage.

Forming a Vision

The group admitted that this was more than a marketing problem. They stepped back and considered the evolution of the Internet. They talked about "waves," with the first being the client-server wave, which prepared the world for the Internet by deploying a networked PC infrastructure. HP had ridden the client-server wave but had not positioned itself to catch the next wave (Exhibit 4).

The second wave—the one breaking in 1999—was about the Internet and the audience on it. While other players were nearing the crest of that wave, HP was not even thinking about it. However, the group reasoned, that wave couldn't last: it wasn't creating real value, and only venture capitalists and advertisers were making any money. The goal was to identify a third wave and leapfrog the competition.

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[5] Kathryn Dennis, "Inventing a new HP Way", *MC Technology Marketing Intelligence*, Jan. 1, 2000.

In fact, the group believed a third wave was about to break. They envisaged the following: the world would be mobile appliance-centric not PC-centric; software would evolve to a pay-for-use model; and all products would be more valuable when "wrapped" in services. In fact, products would become services when delivered over the web, i.e., applications, computing power, and storage would all be rented online. The world was heading toward electronically delivered services or "e-services." Whereas the last wave was about searching, buying, and selling on the Internet—a sort of Chapter One of the Internet—the third wave would take the Internet to Chapter Two.

Chapter Two would be about e-services, transactions, and the partnerships that provided them. E-services would include one-stop brokered search engine requests, where the web worked for the consumer, for example, gathering the best deals from airlines, hotels, and rental car companies for a vacation to Hawaii. E-services would also include getting applications, extra computing power, or extra computer storage as services "on tap" over the Net on a per usage basis. HP's role would be to market its infrastructure, services, and appliances as e-services with a network of partners.

Announcing the Vision

By February 2, 1999, Earle and his team had articulated a rough story and now had to communicate it internally. Earle remembered:

> The question is what do you do with it? Do you walk it around HP and try to persuade everybody, which I could, or do you do something insane which is tell the world? Of course, we did the latter. So what happened was the next day there was a NationsBank Montgomery Securities conference in San Francisco…. At the last minute I had to replace our CFO, so I did the speech….and said this is what HP is going to do, etc. Somebody said how much money are you going to spend on launching this? I said $100 million. Of course, I didn't have it yet, but I just said it.

The Wall Street Journal reported that Earle announced "a major branding campaign touting its new Internet strategy."[6] The paper added that he "declined to discuss details but said the first of several events would happen shortly." When the Journal called Platt for comment, he called "this Nick Earle" for an explanation. It became clear that Earle had bypassed HP's traditional decision processes, but Earle hedged, "Well, it's only a marketing strategy." Looking back, Earle reflected on his motives: "HP was like a herd of 46,000 wildebeest. Everyone knows we're there, but we were just meandering around. I wanted to cause a stampede—and then figure out where we're going."[7] Fortunately for Earle, Livermore provided "air cover" for his group. Fortunately for HP, its stock price closed up $4. Livermore approved Earle's $100 million marketing campaign and a $1 billion budget for acquisitions and equity investments to support the e-services strategy.

Transition at the Top of HP

In March 1999, HP announced the formation of an "e-services" unit. In May 1999, HP announced the rollout of a new vision, new technologies, and new buzzwords for what its

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[6] "Ad Notes....", *Wall Street Journal*, Feb. 5, 1999.
[7] "HP's Carly Fiorina: The Boss", *Business Week Online*, Aug. 2, 1999

executives called "Internet Chapter 2." At a June analyst's meeting, Platt introduced and Earle presented the e-services strategy (Exhibit 5).

However, the e-services vision was not HP's main focus at this time. In March 1999, Platt announced that he was leaving as CEO. He also went outside HP for his successor—the first time HP had ever done so. In the summer of 1999 he was instrumental in hiring Carleton "Carly" S. Fiorina.

Fiorina was the former president of the $20 billion sales and service division of Lucent Technologies, a leading telecommunications equipment provider formed from the systems and technology units that were formerly a part of AT&T Corp. Her former boss, Richard McGinn, CEO of Lucent, called her "wicked smart." HP's need to refocus on its customers needs played to Fiorina's marketing and sales strengths; she had become known as a super-saleswoman, winning over customers for Lucent in 43 countries. Plus, with HP spinning off its non-core businesses, her experience in leading Lucent's record-setting IPO would help her spinout Agilent in the fall of 1999. As she told Fortune, "I have an ability to grow businesses, and the experience I had with the AT&T-Lucent split, and what opportunities a split like that represents for both companies are very relevant for HP."[8]

Fiorina also offered HP the charisma and energy to take charge. She added star power to an IT company, at a time when other companies' senior executives - Scott McNealy, CEO of Sun Microsystems, Larry Ellison, CEO of Oracle Corporation, and Michael Dell, CEO of Dell Computer Corporation - were becoming business icons. Her charisma contrasted Platt's understated style. Whereas he drove the Ford Taurus issued to HP's senior managers and flew on commercial flights, Fiorina insisted on driving her Audi A8 and immediately bought a Gulfstream jet for her business trips.

E-Services Legitimized

In Fiorina's first week at HP, Earle called her office to see if she would like him to present the ECSO e-services plan to her, but was told "no." Earle and his group wondered whether they should start calling back some of the headhunters they had ignored. The put-off was intentional, however, as Fiorina was spending her first six weeks at HP traveling the world to meet key HP customers. In October 1999, Fiorina unofficially recognized Earle as chief strategist for the Internet and put him in charge of expanding the ECSO plan into an e-services framework for the rest of HP. In mid-November, Fiorina made the keynote speech at Comdex, the world's largest IT tradeshow in Las Vegas, and the central focus of her speech was the Internet revolution and how the Net economy would impact business. In late November 1999, Livermore officially announced Earle's group to security analysts: "Nick will lead this function to drive the strategy and business development for e-services across all of Hewlett-Packard."[9] In mid-November 1999, Earle hired key executive talent. By early 2000, ESS had started the ramp-up in its functional ranks.

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[8] Sue Zesiger, "Fortune Cover Girl Storms the Valley," *Fortune*, Aug. 16, 1999.

[9] HP website, http://www.hp.com/financials/personnel/secanal/1199_sec_livermore_1.html.

THE STRATEGY OF ESS

HP was betting that "eventually the whole world will be services that you access through appliances powered by an infrastructure." Earle predicted:

> You'll have 20 appliances that you use during the course of a day and you'll be accessing the Internet. You won't know it's the Internet; it will be invisible. You'll be accessing services: travel, schedule, book lunch, where's my next appointment, weather, stock, buy, sell, chat. You'll be talking to your watch, and your earring will beep. That's going to be the world.

The three key "vectors" of the ESS strategy were services, appliances, and infrastructure, and HP was uniquely positioned to deliver them. First, HP was creating services or helping other companies create services. HP Labs, the company's cross-divisional R&D unit, would create technologies to support those services.[10] Second, appliances would proliferate until anything with a microchip would connect to the web, and HP was the world's third largest appliance company. Third, infrastructure—computers, storage, and software—had to support the "trillions of transactions" and "billions of appliances." HP, as a leading infrastructure provider, was essentially a "big plumber." Earle explained, "The killer segment is where you get infrastructure, services, and appliances all intersecting. The growth is where these three things intersect."

Target Markets

The ESS strategy entailed predicting the winning e-services and figuring out which end market segments would be their lead adopters. They looked for "hot pockets of activity" that would be "launch points" for e-services. In April 2000 this included nine segments:

1. Mobile and wireless
2. Internet data service providers and telecom companies
3. Dot coms and start-ups
4. Trading communities and business hubs
5. Small to medium-sized businesses
6. Incubators and VCs
7. Printing e-services
8. Corporate information portals
9. Digital media and publishing and education e-services

The list was not exhaustive: it did not include healthcare, for example. Earle guaranteed the list would change in a month as the markets shook out.

Partnering

In areas where it had an appropriate asset or service in house, HP could directly provide e-service—for example, computing "on tap," storage "on tap," or leveraging HP's installed base of printers as digital mailboxes. For other e-services that HP wanted to deliver it would look for

[10] Exhibit 6 very briefly describes three HP technologies to enable e-services.

partners ESS also thought about the stack of services, software, and hardware that enabled a provider to deliver an e-service. The stack included the product or service, the network infrastructure, billing, security, etc. Either HP would provide the enabling technology or partner with someone who could. Building this "keiretsu" or ecosystem of partners would allow HP to provide services or technologies it didn't have in house and would attract more partners who wanted the plug and play solutions HP was lining up.

Financing

Venture financing would also attract partners. ESS funded equity investments in start-ups and extended "creative" financing to start-ups looking to invest in an HP platform. Bob Pearse was in charge of equity investments. He had a budget of $100 million to make minority investments, typically of about $5 million, with venture capital firms in start-up companies. These investments were strategic bets on new marquee technologies for HP. Joanna Wampler was in charge of allocating up to $500 million in ESS debt financing—providing the leases for equipment. She could extend terms riskier than typical for HP, e.g., revenue sharing, convertible debt, or warrants in exchange for equipment. Revenue sharing meant that partners could pay for equipment or services with, for example, 3 percent of revenues from the e-service. These unconventional deals created great press and interest from customers, but they were thought likely to comprise only 2 to 3 percent of HP's alliances.

HP's Value Proposition to its Partners

ESS complemented these technology solutions with non-traditional options. Earle explained, "We're the arrowhead organization that can bring any product or solution from anywhere in HP into one solution for the customer."[11]

First, ESS could provide financing. Second, it could market and sell the e-service through the HP marketing organization and sales channels. This meant 6,000 sales representatives and 30,000 channel resellers who could be leveraged to sell a partner's e-service, and it also included Earle's $1 billion marketing budget and being mentioned in Fiorina's speeches. Third, HP offered "membership" in the network it was creating. Fourth, ESS offered consulting and thought leadership. Earle insisted this visioning was "a hell of a door opener." And fifth, ESS offered use of HP's brand name. As Wampler remarked, "You would be amazed at how many start-ups want to partner with HP in order to have our name on their S-1 (the registration statement for going public) as a partner."

The ESS group reasoned that many of their partners would be either start-ups strapped for resources or "bricks-and-mortar" companies looking for fast one-stop solutions to enter the Internet space. The opportunities to secure an HP platform, to finance HP computers and software in creative ways, to gain marketing and sales support from HP, and to share business risk would both attract and retain such partners. As Earle insisted, "We're not selling computers anymore. When we go to an Internet service provider, I don't say, 'Our box is better than so-and-so's box.' I say, 'Look, I'll build a business with you, and I'll completely share your risk.'"

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[11] Dennis.

Measuring Success

HP would also benefit. These partnerships would drive incremental sales of HP hardware, software, and services, which would be the benchmark for measuring ESS's performance. In its first year, ESS wanted to bank $400 million in increased orders fulfilled from the rest of HP but booked through ESS deals. These dollars were meant to be incremental sales that HP would not otherwise have gained. Earle even claimed that his group to date had a 10 to 1 leverage effect on increased sales: $400 million would increase to $4 billion more in sales for HP. For example, if ESS booked a $30 million deal with Ford, that would translate into $300 million in revenue from other customers who heard about the deal and wanted to partner with HP.

Earle insisted that ESS be measured on HP's sales and that sales be booked with HP not ESS to avoid grabbing sales from the HP sales force. He realized that this ran counter to the accounting system typical of a large organization—which would require matching the ESS budget and people to specific sales. But that would mean, according to Earle:

> [ESS would] have to pinch orders off the rest of the field. And eventually what happens is the rest of the field kills the group because they say, "I'm not ever going to work with you. Every time I meet you you're going to take bread out of the mouths of my children." So, what we do instead is we say, "No, no, no, you're the sales rep; I will work with you. I will add *lots* of resources; this deal will close more likely because I'm working with you. You now are going to book the whole thing still but it's going to be 10 times bigger. You book it."

In addition to this "hard" measure, ESS had a "soft" measure that counted the "strategic wins" gained through partnerships and equity investments because these could lead to "the next billion dollar ecosystem." Earl understood that analysts would ignore any gains in equity that did not come from operations. But, ultimately, he wanted ESS to lead HP away from intense price competition in hardware to profits from relationships and services. Thus he considered credit from soft wins to be important.

Deals

By May 1, 2000, ESS had announced alliances with 41 partners (Exhibit 7). Earle struck the first deal with Ariba, a vendor of operating resource management systems to be the exclusive launch partner of Ariba's Ariba.com Network. Bobby Lent, co-founder of Ariba, and Earle talked on a plane from London to San Francisco for five hours; in fact, they got kicked out of first class for the noise they were making. At the end of the flight, Lent decided HP would be the exclusive launch partner. The terms of the deal were surprising. HP promised to give Ariba millions in equipment such as HP 9000 servers, OpenView management software, and hosting services. Plus, HP would help market and sell the service: Earle gave Ariba access to 6,000 sales calls a day, and Earle and other ESS executives mentioned Ariba in their speeches. In exchange, Ariba would pay nothing up front, only a percentage of the memberships fees it charged.

Ariba's co-founder Bobby Lent said:

> About 80 percent of our customer base is using HP hardware. They see how closely aligned HP is with Ariba and how that close relationship is resulting in good stuff for

> them. Risk is something people want to mitigate. What's clear, if you go with HP and Ariba, they make things work; it's a repeatable event.[12]

The biggest alliance partnership was with Qwest Communications, a telecommunications service provider with a nationwide, high-capacity fiber optic communications network. "The real challenge for us was to win over the new apps-on-tap providers," Earle remembered. The Qwest deal got HP into a core e-services market: application service providers (ASPs). Earle recalled the deal cut in May 1999: "We gave Qwest $500 million of servers, software, storage, and consulting. We said to them: 'Here it is, and it's free. But pay us on a percentage of the value you create by using our products.'" The alliance helped Qwest accelerate the launch of its CyberCenters, its bid to play in the hosted application services market. Qwest agreed to make HP its preferred supplier and to incubate its own program for software start-ups seeking an e-services outlet. Earle believed the deal could bring in $1 billion in revenues during the next three years.

In September 1999, HP and Qwest expanded their relationship to include storage. Lew Wilks, President of Qwest's Internet and multimedia markets, commented:

> What we have created is a partnership model that becomes a template for successful partnering in the industry and, certainly, one that we'll use again and again. The agreement is structured so that both parties have an interest to accelerate both parties' businesses and increase market share aggressively. We have mutual objectives.[13]

A third strategic alliance with Yahoo! involved the corporate information portal market, connecting companies' employees to external information services that were unique to their job functions. Yahoo! had a leading consumer portal that many individuals were using, but could not integrate its system with a company's intranet, which demanded impeccable security. Linda Lazor, Director of Operations of ESS, explained the deal in August 1999:

> The main things Yahoo! wanted from HP were to have access to our enterprise sales force that calls on the Fortune 50 as well as the ability for HP to design the server that sits inside the firewall and provides access through their portal to both the company intranet as well as going outside the firewall to the standard Yahoo! feeds….So they came to us and said they understand the consumer space, they understand the content feeds, but we can link all that stuff sitting behind the firewall into their screen and we have a sales channel to get to enterprises. They asked why don't we play the lead in putting that part of the program and the product together for them.

Competitive Positioning

ESS believed they were positioned well versus their main competitors, Sun Microsystems and IBM. Historically, these two firms had been the company's top two rivals. All large computer manufacturers, they competed heavily to offer the powerful servers that run networks, Internet sites, and corporate databases. HP believed its technology choices, financing, and sales reach were better than Sun's. First, HP could build UNIX, Linux, or Windows NT platforms; Sun essentially offered only UNIX. Second, Sun had no financing itself and instead had a financing deal with GE Capital, which HP believed prevented Sun from extending riskier financing

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[12] Dennis.
[13] Dennis.

opportunities. In contrast, HP's substantial financing operation—with $6 billion in credit outstanding— which was prepared to take risks. Third, Sun lacked a PC business, while HP marketed and sold its products to both enterprises and individuals. If a dot com were looking for marketing and sales support, no one had better reach than HP.

Earle believed that IBM, having built an extensive consulting practice, needed to sell consulting as the bulk of its "e-business" offering. These consultants could then help customers build and implement an e-business solution in their company. ESS, on the other hand, involved a network of partners that could supply "plug and play" pieces of the stack, so that a new partner did not have to implement a complicated internal plan. "An IBM will never embrace apps-on-tap, for a very simple reason: [installing apps-on-tap] doesn't sell consultants….If I sold you an [e-services] solution, you don't actually implement it inside your company, and you don't need busloads of consultants."[14]

Finally, most of HP's competitors didn't make appliances, while HP did. HP had an extensive product penetration—an installed base of one million printers and 300,000 PCs shipping each month—available to leverage as mail boxes or screen real estate. Lazor explained, "So we can bring into these deals anything from our laser printers to our calculators to our consumer PC franchise in addition to our standard server business."

E-services, however, changed the competitive landscape: it was no longer limited to HP's traditional hardware and software competitors. HP's business definition now included procurement of enabling technologies for "the stack" and web development and expertise. As Bob Pearse said, "The world was simpler two years ago [in 1998]. It's not clear who our competitors are. The Suns, IBMs, Dells, Compaqs of the world may be our competitors, but the e-commerce strategy consultants and technology solution providers of the world might be as well. They may also be our partners though, too."

THE CULTURE AND OPERATIONS OF ESS

Earle realized that the culture of his group had to be distinct from that of the rest of HP. He recognized an implicit danger in attacking the HP Way, but HP's human resources (HR) policies, incentives, and habits did not suit the speed or attitude of a start-up organization. Yvonne Hunt, the ESS HR manager, was "mortified" to see the dull gray applicant packet that went out to HP job candidates, with its "20-times photocopied sheet" of HP's history in electrical instrumentation. She remembered:

> So we're selling these people on "come and join the revolution, we're different, creative", and here is this!…But it was just indicative. You know those things that maybe happened over the years, now when you stand back and you look at it you go, wow, well what kind of message does that send? And how many other [messages] are around that we're just not even seeing because we've been here for so long?

Signs posted in HP corridors requested, "Please do not speak in the corridors. People are working." Earle, instead, infused fun and levity:

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[14] Dennis.

> In my cube I have a box of toys, balls, footballs, foam rubber light bulbs, and I wander around doing my phone calls with my wireless headset, and I'm throwing the balls to people, and they're throwing back. I have these low walls so I can throw to these guys 10 cubes down, I mean there are missiles whizzing across the cubes. I'm not trying to be a big kid, but what I am doing though is really trying to get this spirit of fun and motivation. As a result, people will work until 11:00 at night. They work Saturdays and Sundays.

Although ESS's offices were initially situated in Building 44 on HP's Cupertino campus, Earle planned to move the group off-site by the fall of 2000. As Hunt said, "We want to go somewhere where can be expressive. So if we want to paint the walls green, we can paint the walls green, not having to go through 28 people to be told we can't paint the walls green."

At an early off-site meeting, the ESS group gathered at Palo Alto's at the Gordon Biersch brewpub. While not unusual for a start-up, this took many former HP employees by surprise. Hunt explained, "For HP, it had always been work, work, work….never any play." At this event, to highlight the culture change, Hunt distributed a new colorful book called "the revolution starts here." In it, mantras with pictures urged the group: "First ponder, then dare. Be the catalyst. Exemplify the rules of the garage. Be impatient. Persevere."

The financing teams also made a shift to a culture that encouraged risk and speed. Pearse, now in charge of ESS equity investments and formerly with HP corporate finance, pointed out how HP wanted every financing decision to have a clear business case with heavy analysis. His group didn't have time for business cases, and they took a portfolio approach–something foreign to HP. Wampler, head of debt financing, remembered approving a $10 million line of credit to a start-up in St. Louis that needed computers:

> Even though these people looked bad on paper, based on how I was used to looking at companies, I knew deep in my heart that they were going to be successful. So I okayed a $10 million line of credit. That was a big epiphany for me. Before it took us several weeks to make a decision on extending credit. Start-ups want to hear that you can act fast. That's the number one term that they are interested in.

Recruiting

In March 2000, Earle had 90 people in the ESS Group, 20 of them hired from outside HP. Hunt preferred a mix of people from inside and outside HP. While outsiders brought a new perspective, people from other HP divisions could link back to their former groups. Of the 70 people who came over from HP, most had been with the company for five or six years. As Hunt said, "We have a lot of people who are frustrated with HP and the lack of progress in their own little business….In fact I have many people who resign and their managers say [to them], 'Before you leave, just go and talk to Yvonne in e-services because it may be that even though you don't want to stay here you might want to join that group.' So we get people as they're going through the door literally."

Earle wanted to grow the group to 200, but the job had start-up pressures and lifestyle coupled with HP's own incentive structure. Still, ESS unlike HP offered people $5000 as a referral bonus. But why would the best and brightest join HP if they had more attractive options? And headhunters were wooing away key HP employees every day. Earle observed:

> We're the big sitting ducks right in the middle of the Valley. I mean, here we are with 40,000 people in California. Guess who they call first? Everyone who works for me—if they're not being headhunted, they should be because they're all great people. As a result, my group is an experiment where we've basically said we need a system to retain key people because they're being offered millions to leave.

Compensation

Beyond senior executives, HP did not offer its employees significant pay-for-performance compensation. There were no cash bonuses. The profit-sharing program was typically only 3 to 5 percent of salary. In addition, most employees on average received 300 to 400 options per year. If you progressed up the corporate ladder, senior managers were entitled to the company car, a Ford Taurus. Finally, raises did little to reward top performers: top performers earned a 7 percent raise, but poor performers pay rose 3 percent. Hunt believed a lack of accountability for results had crept in.

Earle and Hunt decided to opt out of the traditional HP pay scheme and structured a compensation plan and culture that rewarded performance but minimized the risk of joining HP. Earle recalled, "Culturally we had to break every rule in the book to do that….We went to meeting after meeting after meeting with the HR community with people saying, 'You can't do this, you can't do this,' and I just kept on saying to the HR manager, 'Do it, do it, do it.'"

In March 2000, they won approval for a new ESS payroll and incentive scheme, separate from the rest of HP. The changes aligned rewards with stock performance and diminished other benefits. Most ESS employees' annual salaries were decreased by 15 percent (Earle himself took a 25% pay cut) and they were no longer eligible for profit-sharing or for a company car.

In exchange, ESS employees were offered new incentives. First, an annual cash bonus representing 20 to 60 percent of salary was contingent on the group's meeting its incremental sales target. Second, each employee was granted an average of ten times more stock options.. Some options had accelerated vesting based on ESS's and HP's performance.

Earle had high expectations for how employees would perceive the plan: "I thought they'd be dancing in the street because the average employee who works for me can earn $1 million—that's the *average* employee. And we actually had the opposite reaction." People were shocked at the cut in salary:

> They said, 'You've told me I can now earn less money. It's *possible* for me to earn less money, so I don't like it. You've taken the security away!' And so I responded, 'Well, yeah it's not a country club! Welcome to the world of accountability!' And we underestimated—we grossly underestimated—the cultural impact of accountability amongst engineering people. Anyway, we got through that, and we showed them how much money they can earn, and the fact that the stock went up today, that kind of helps. They'll earn a lot of money. And some people won't like it *still*, and they'll leave, and that's ok.

Some people had already resigned to pursue dot com "fever." Hunt also expected to lose others to HP and that this would cause alarm within ESS: "Again, that's something that people are not used to. They're not used to people leaving. Historically, people joined HP for life. Well, you know, this world is different now."

Operations and Integration with the Rest of HP

Earle reported to Livermore who reported to Fiorina. Earle focused on outbound activities, such as meeting with potential partners and the press. He had eight direct reports, including the finance, operations, and HR managers mentioned above (Exhibit 8). Three general managers tackled the nine target markets, identifying deals and owning the relationships with strategic partners. 20 percent of new deals came from pursuing new opportunities, 80 percent from the buzz ESS generated; Earle wanted the balance to swing the other way.

Many of the deals came to ESS from HP's 6,000 field sales representatives. HP reps essentially sold one type of product: computers, PCs, printers, or software. Because ESS sold multi-product solutions to market segments, Earle had to reeducate sales people and change sales compensation. He explained:

> The average hardware salesman here basically used to sell a box and get paid for it, but now they sell a service. You've got to fundamentally change your compensation and training model because what you're saying is guess what, the job is no longer to sell a box to the end user. Cultural whoa! Massive! And that you don't do in a month, you don't even do it in six months.

The massive effort to train sales included web casting, video, seminars, and speaking events. But target markets could change in a month. Earle admitted, "So it's a real issue for us—scalability—and we're spending a lot of money on training. I don't think we've solved it yet, short of cloning."

While ESS closed deals, other HP divisions, the printer business, for example, delivered the services or products. ESS therefore worked in tandem with people in the other businesses. Maintaining relationships with the rest of HP was essential.

Hunt hired two people to work on HP relationships. Denny Georg was ex-HP Labs, he worked the technology relationships across HP. In April 2000, Rich Raimondi was named COO of ESS to manage the internal work within ESS and back into HP. He had worked in most of the HP businesses and nurtured relationships between them and ESS.

Hunt believed that ESS had to communicate better with the rest of HP. Most communication was through personal relationships. While senior management knew about ESS, lower levels did not. What message to communicate was another challenge. Earle noted: "On the one hand you have to be out there with the customers saying we can do the deals, but we don't want to come across internally as the masters of the universe, the swagger. That is very tough."

LOOKING AHEAD

In April 2000, Earle focused on three goals:

1. Create, own, drive, and get agreement across HP for the Internet strategy. Be the central point for strategy.
2. Be a deal-making machine.
3. Transfer knowledge from ESS. Take the learnings of the group and "throw them over the wall" to the rest of HP.

The great danger he saw was:

> If we just achieved the first two goals, we'd be wildly successful, and the rest of HP wouldn't change. In many ways our job is to infect the rest of the organization—positively—so that we help them change. Trying to change 100,000 people is an interesting job.

ESS as Change Agent

In Hunt's opinion, November 1999 through April 2000 comprised Phase 1 of ESS—its design and incubation. Phase 2 would emphasize sharing and learning. She was working to create an HR framework that other HR managers could share. Explaining it repeatedly with no context took time. For example, as Earle and Hunt rolled out the new compensation plan, Fiorina decided it should be a pilot for the rest of HP. Hunt feared the extra demands on her time as other HR managers called her to learn more about it. She expressed the problem: "How much do you incubate what we're trying to do versus how much do you allow the change machine to start taking place?"

Susan Bowick, HP's Vice President for HR, who reported directly to Fiorina, was watching the implementation of and response to this new program. Bowick told Earle she wanted to reinvent HP HR using ESS as an example. Earle was spending 20 percent of his time with the rest of HP sharing what his group was doing. He said, "I spend a lot of my time internally rallying the organization, preaching the vision, defending the group, subtly selling it."

Cultural Change at HP

While ESS was piloting new cultural initiatives for HP, Fiorina was trying to change how HP operates. In December 1999, HP introduced a new advertising campaign and a more contemporary logo featuring only the company initials, underscored by the word "invent." The logo was intended to convey a faster, invigorated, committed HP and remind audiences of HP's roots as a company of inventors that was reinventing itself again (Exhibit 9).

Fiorina also returned to HR's roots and developed the "Rules of the Garage" (Figure 1).[15] She tasked a "Rules of the Garage" committee of senior managers to determine what HP's new culture should be. Hunt, who served on the committee, added, "We've all seen the HP Way, all of the literature, and books. Well, what is the HP Way for the future?"

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[15] HP website, http://www.hp.com/ghp/features/invent/rules.html, May 1, 2000.

Future of ESS

By April 2000, Fiorina was spending more time with Earle and ESS customers. In early April, Earle noted: “I’ve been with her every day for the last 10 days. And I think what that shows is as this thing gets more momentum, she’s giving it more of her time, and it’s adding value.”

Success would depend on many things: changing the market’s perception of HP; executing the deals well; and pulling together resources from inside HP. Hunt noted that while deals created positive energy, the bureaucracy and impediments to “getting things done” in a large organization created a lot of negative energy.

Fiorina’s efforts to break down silos across HP would be crucial. Hunt commented:

> We’re having to work through all of the old systems and processes, and we are also part of a large organization which doesn’t report into Carly. We report into Ann Livermore’s organization, so we have to go through that organization before we get to that next level. So there are extra steps that are in there that are time-consuming and frustrating at times.

The future of ESS was uncertain. When asked about it, Earle answered:

> First of all, the chances of our existing in this form in a year’s time are remote. The honest answer is we don’t know, because long term planning is three months. But if I had to predict, my goal would be that we would be completely obsolete, but I don’t think it will ever happen. In other words, if we really are successful—it’s like don’t give people fish, teach them how to fish—if we are really teaching them how to do Internet deals, then once everyone knows how to do it, why would they need us?

Figure 1: Rules of the Garage

Rules of the garage.

Believe you can change the world.

Work quickly, keep the tools unlocked, work whenever.

Know when to work alone and when to work together.

Share —tools, ideas. Trust your colleagues.

No politics. No bureaucracy. (These are ridiculous in a garage.)

The customer defines a job well done.

Radical ideas are not bad ideas.

Invent different ways of working.

Make a contribution every day. If it doesn’t contribute, it doesn’t leave the garage.

Believe that together we can do anything.

Invent.

Exhibit 1
HP Revenue History 1995-1999

Hewlett Packard
($ Billions)

	1995	1996	1997	1998	1999	CAGR
Net Revenue	25.4	31.6	35.5	39.4	42.4	13.6%
Annual Growth Rate		*24.4%*	*12.2%*	*11.1%*	*7.5%*	
Net Income	2.0	2.1	2.5	2.7	3.1	11.6%
Annual Growth Rate		*5.0%*	*19.0%*	*8.0%*	*14.8%*	
Net Income as a % of Revenue	7.9%	6.6%	7.0%	6.8%	7.3%	

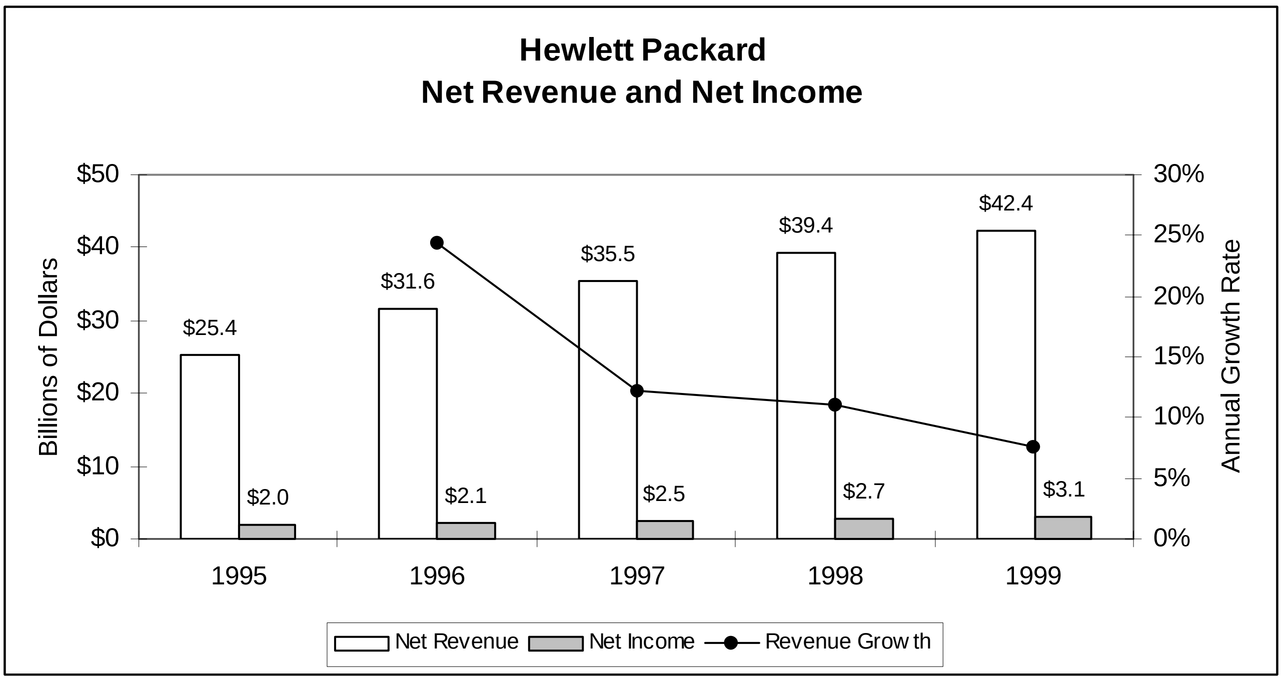


Exhibit 2
The HP Way

Some examples of HP Way practices:

Management By Wandering Around (MBWA). An informal practice, which involves keeping up to date with individuals and activities through informal or structured communication. Trust and respect for individuals are apparent when MBWA is used to recognize employees' concerns and ideas.

MBWA might look like:

- a manager consistently reserving time to walk through the department or be available for impromptu discussions.
- individuals networking across organization.
- coffee talks, communication lunches, hallway conversation.

Management By Objective (MBO). Individuals at each level contribute to company goals by developing objectives, which are integrated with their manager's and those of other parts of HP. Flexibility-and innovation in recognizing alternative approaches to meeting objectives-provide effective means of meeting customer needs.

MBO is reflected in:

- written plans which guide and create accountability throughout the organization.
- coordinated and complementary efforts and cross-organizational integration.
- shared plans and objectives.

Open Door Policy. The assurance that no adverse consequences should result from responsibly raising issues with management or personnel. Trust and integrity are important parts of the Open Door Policy.

Open Door may be used:

- to share feelings and frustrations in a constructive manner.
- to gain clearer understanding of alternatives.
- to discuss career options, business conduct, and communication breakdowns.

Open Communication. At the core of our practice of open communication is the belief that when given the right tools, training and information to do a good job, people will contribute their best.

Open communication leads to:

- strong teamwork between HP people, customers, and others.
- enhanced achievement and contribution.
- customer relationships built on trust and respect.

Source: HP website, http://www.hp.com/abouthp/hpway.html, May 1, 2000.

Exhibit 3
HP Stock Performance

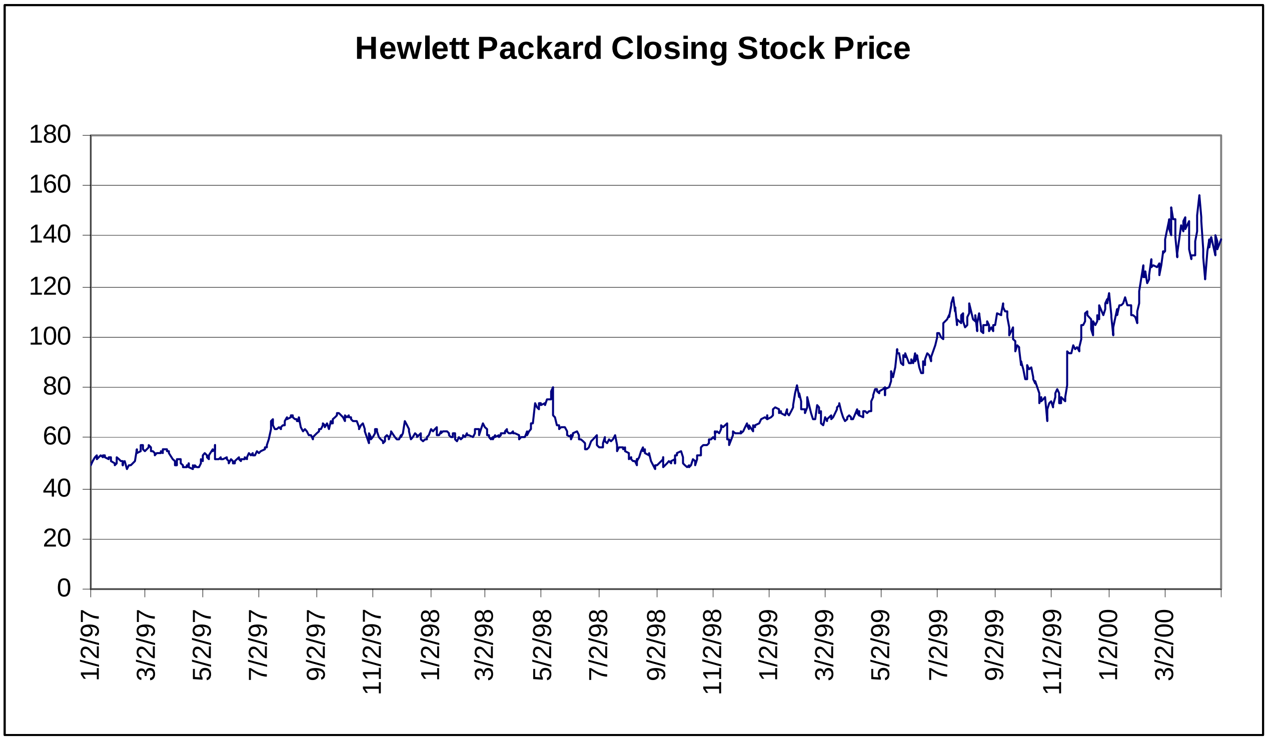
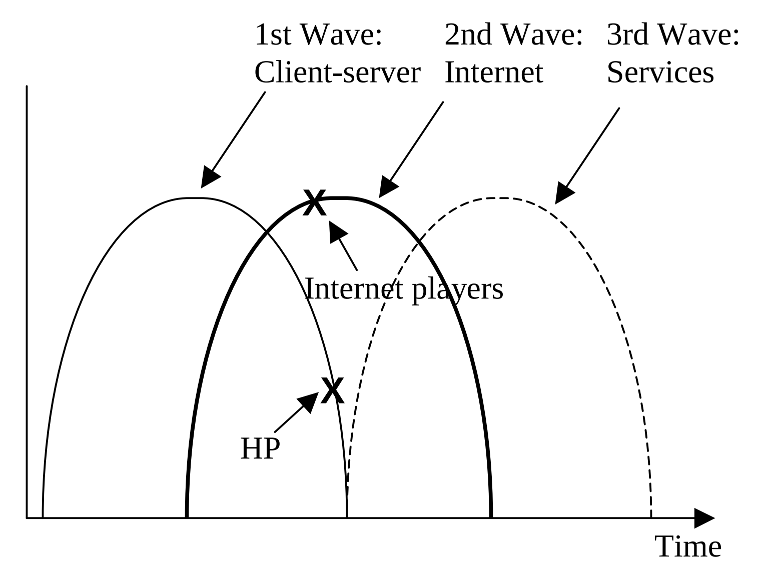


Exhibit 4
The "Third Wave"



Source: Hand drawing by Nick Earle, made during interview, March 3, 1999.

Exhibit 5
Excerpts from the June 2, 1999 HP Presentation to Security Analysts

Presentation to Security Analysts

On June 2, 1999, HP hosted its semi-annual meeting with security analysts in New York. (A second meeting is held every winter in Palo Alto). The following are excerpts from Lew Platt's opening comments.

E-services: a unifying strategy
E-services is an important strategic direction for HP.
We're putting energy and dollars behind it. We're rolling it out in a way that's unique for our company. And employees, partners and customers are rallying around the e-services concept.
It's a logical next step in the Internet story—we call it Chapter 2—and that's what makes it so compelling.
It's also a unifying and inclusive strategy for HP. We see broad opportunities in business-to-business, computing and consumer services.
Many have asked: Is the e-services strategy here for the long term? Will it stick?
The answer is yes. And yes.
And here's why.
First, the strategy represents a natural evolution for our company. It's part of our DNA.
Joel Birnbaum, HP's former director of HP Labs and now our company's chief scientist, created the vision of computing as a utility almost 20 years ago. He predicted that a whole host of appliances would plug seamlessly into this utility.
In the '80s, HP committed to open systems and standards-based computing. We were pioneers of RISC technology, drove development of client-server computing and are today leaders in UNIX technology.
These are the foundations of Internet-based computing and e-services.
Second, our computing-and-imaging businesses are now organized to deliver on the e-services vision.
Third, e-services will benefit all of our businesses. Here's why:

- Most of our products, services and solutions can either be an e-service or be part of one;
- PCs, appliances and imaging products all become the on and off ramps of the net and are part of the e-services world;
- Our servers, Net software and services deliver the front end and back end required for supply-chain and e-commerce "apps-on-tap" e-services.

All our businesses share the belief that e-services is the next evolutionary step in the Internet story.
Most important, e-services will greatly benefit our customers and help them use the power of the net to achieve competitive advantage. And we believe Hewlett-Packard is uniquely positioned to deliver on that vision.
That, ultimately, is why the e-services vision will stick and is here to stay.

Source: HP website, http://www.hp.com/financials/textonly/personnel/secanal/0699_sec_platt.html, May 1, 2000.

Exhibit 6
HP Enabling Technologies

Below are some new technologies HP was developing to help businesses implement e-services.

E-speak. Under development for more than six years, HP Labs designed the e-speak platform as a common services interface for the development, deployment, and intelligent interaction of e-services. Intended to be the universal language of e-services on the Internet, the software allowed all Internet sites to talk to each other to competitively bid to deliver goods and services by performing the functions of discovery, negotiation, mediation, and composition. E-speak enabled an e-service to discover other e-services anywhere on the Internet and link with them on the fly—even if they were built using different technology. In 1999, HP posted the basic software code on the Web and released an open-source version that customers and even competitors will be able to build into their own products.

Chai. Chai was a family of software products that enabled a variety of memory-constrained appliances to access e-services and to communicate intelligently with each other. The software used the JavaTM programming language and other Web standards.

E-Squirt. E-Squirt allowed small footprint devices with limited user interfaces to participate in rich web services by interacting with web-connected appliances. For example, a Palm V could e-squirt a web page to a printer, a presentation to a projector, or an MP3 file to an Internet Radio.

Sources: HP website, http://www.hp.com/e-services/technologies/index.html, May 1, 2000. "HP Pushes E-Business", *Los Angeles Times*, Mar. 10, 1999, p. C-3. HP web site, http://cooltown.hp.com/code.html, May 1, 2000.

Exhibit 7
E-Services. Solutions Alliance Partners

The following were ESS partners current as of May 1, 2000:

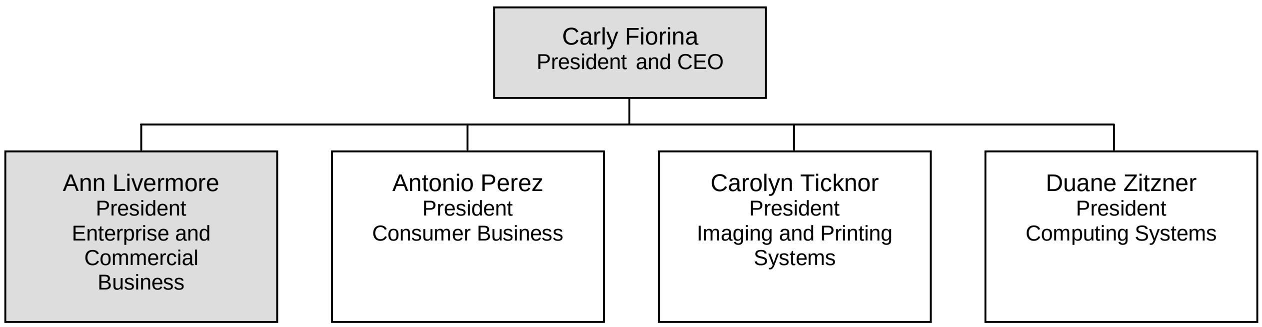
Alcatel	Intelisys	SIA
Ariba	LPG Innovations	Sonera SmartTrust
BEA Systems	Mimeo.com	Stamps.com
Broadvision	Monterey Design	Telenomics
Comptel	MyContacts	TEN Online
EAI	Newspaper Direct	Tesla Group
Encryptix.com	Oracle	USi
FedEx	Portal	USA Net, Inc.
Getthere.com	Praxisline GmbH	Viador
Helsinki Telephone	printCafe	Xcelera
i2	PSINet	Yahoo!
ImageTag	Qwest	Yomi Media
Impress	Sapient	Zantaz.com
InfoCure	Screaming Media	

Source: HP website, http://www.hp.com/e-services/alliances/index.html, May 1, 2000.

Exhibit 8
Organization Charts

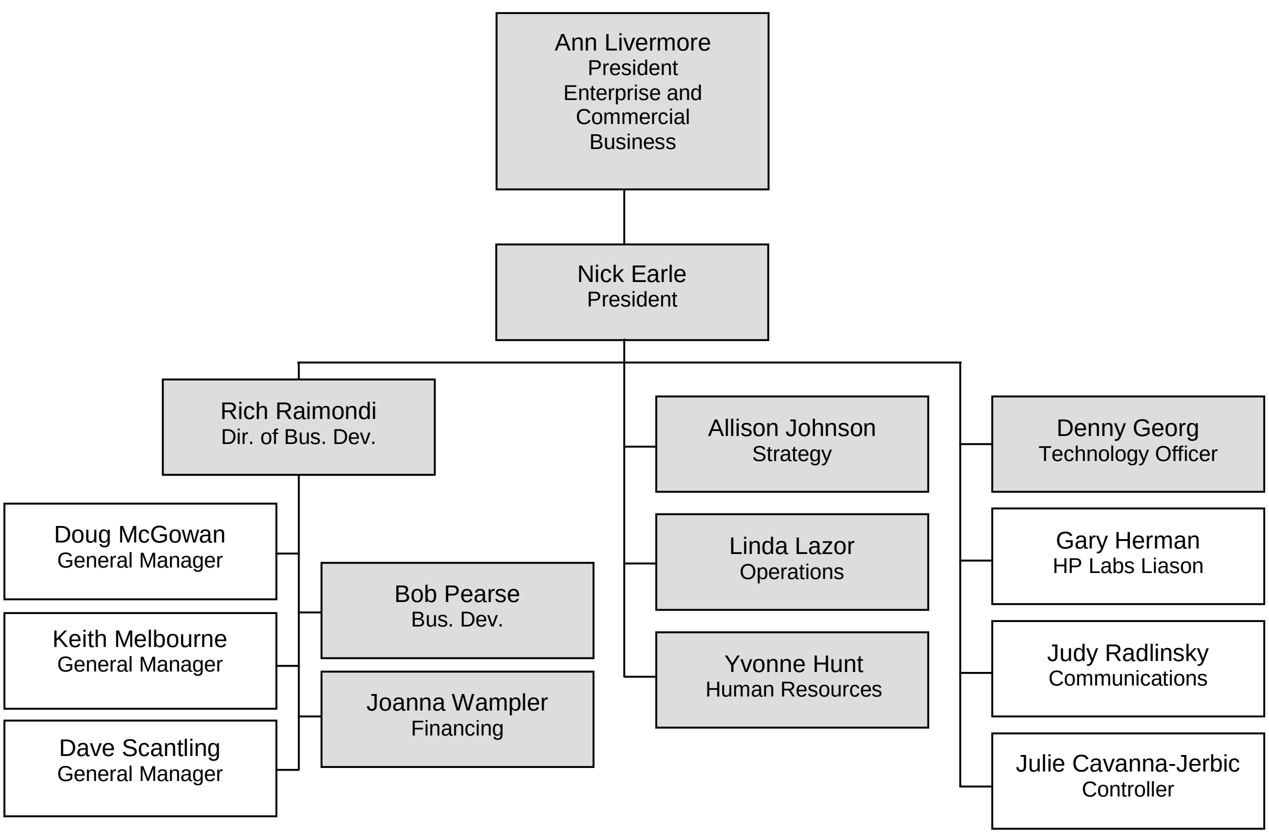
Note: Gray shading highlights HP management mentioned in the case.

HP Corporate, May 2000



Note: Chart reflects Fiorina's August 1999 reorganization of HP into four divisions: two focused on customers (business and consumer) and two focused on product technology and production (printers and computers).

E-Services. Solutions Organization Chart, May 2000



Source: Interviews, ESS Esecutives, March through May, 2000.

Exhibit 9
HP's New Logo

Source: HP website, http://www.hp.com/ghp/features/invent/logo.html, May 1, 2000.