

Networked at Cisco

Lynn Reed's pager went off again. Reed, a manager of an engineering group at Cisco, was getting ready to meet with a manager from one of the automobile manufacturing companies, the ninth outside manager that she had talked to this month. Many companies were eager to learn about the information technology systems and business practices that Cisco had implemented, systems and practices that had increased productivity and helped make Cisco a highly-valued company. Cisco not only sold some of the key technologies that enabled the Internet, but was also viewed as a leader in using these tools and in creating a complementary set of business practices and culture. Even the recent downturn in Cisco's business and the subsequent layoffs had not decreased interest in Cisco.

Reed had an electrical engineering and computer science undergraduate degree and an MBA from MIT. She had worked for large companies, including Hewlett-Packard and Sun Microsystems, and for a start-up in Silicon Valley before coming to Cisco in mid-1999. As Reed returned the page, she reflected how the existing systems and practices at Cisco had influenced her work, and considered how these systems might be adopted by other firms in an effort to transform their practices.

Background

Cisco Systems, Inc. was founded by two computer scientists at Stanford University in 1984 to develop and manufacture networking systems; Cisco went public in 1990.¹ Until Cisco introduced its first commercial router in 1986, machines on local networks had been unable to communicate easily with machines outside of that network. The multi-protocol router allowed geographically dispersed local networks of computers, often using different networking protocols, to link together. Cisco quickly became a worldwide leader in networking hardware, software, and services, growing to over 40,000 employees and annual revenues of \$23.8 billion by the end of 2000, although the downturn in the economy affected Cisco's 2001 revenues and forced Cisco to lay off nearly 14% of its employees. (See **Exhibit 1** for a chart of revenue growth and **Exhibit 2** for a chart detailing the growth of the number of employees.)

¹ Financial and product information is from the company web site (www.cisco.com) and its 2000 10-K.

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Cisco's strategy was to be the supplier of choice in networking infrastructure. To achieve that goal, Cisco developed and acquired a broad range of products and services that allowed them to provide end-to-end networking solutions for their customers; in addition, many of Cisco's products could be easily upgraded or expanded, giving their customers the ability to extend their networks as their needs changed. Cisco's products and services included:

- Routers
- Switches
- Network and Internet Access Products
- Systems Network Architecture
- Internet Services
- Network Management Software
- Customer Advocacy

The majority of Cisco's products ran the IOS Software, a common networking software platform. The IOS Software allowed customers to build networks that were flexible, scalable, reliable, and secure.

Although Cisco developed many of its products in-house, often working closely with customers to identify needs, it had acquired 63 companies since 1993 to fill gaps in its product line, open up new distribution channels, or enter new markets. Cisco tended to look for relatively small companies with a high proportion of engineers; in addition, as Mike Volpi, Cisco's Chief Strategy Officer, put it: "Cisco's strategy can be boiled down to five things. We look at a company's vision; its short-term success with customers; its long-term strategy; the chemistry of the people with ours; and its geographic proximity."² Potential acquisitions were evaluated on how well they "fit" with Cisco's way of doing business, and acquisitions were called off if Cisco management didn't believe there was a fit between the companies. For example, the night before the deal was set to close, Cisco halted the acquisition of Chipcom for this reason.³ When it acquired companies, Cisco focused on retaining the talent in those companies while integrating them into Cisco.

Cisco's customer base was not concentrated in any one industry nor had any one customer accounted for more than 10 percent of Cisco's net sales. Cisco's customers fell into one of four categories:

- Enterprise: Generally large organizations with 500 or more employees with complex networking needs, usually spanning multiple locations and types of computer systems. Enterprise customers included corporations, government agencies, utilities, and educational institutions.
- Service Providers: Organizations providing data, voice, and video communication services to businesses and consumers. They included regional, national, and international long distance telecommunications carriers, as well as Internet, cable, and wireless service providers.
- Small/Medium-Sized Businesses: Businesses with fewer than 500 employees and a need for networks of their own, as well as connection to the Internet and to business partners. Because these customers generally were limited in their networking technology expertise, Cisco attempted to provide products that were affordable and easy to install and use.

² Henry Goldblatt, "Cisco's Secrets," *Fortune*, November 8, 1999, Vol. 140, No. 9, page 177-181.

³ *Ibid.*

- Consumers: Individuals with a need for networking devices and services to connect themselves to the Internet from within their homes. In addition, some advanced consumers networked together a range of devices—including personal computer, television, telephone, and fax—into an integrated personal network within their home. They used regional carriers and Internet service providers for their Internet access.

“It’s All on the Web”

Making Information Available

In line with its business, Cisco used the Internet extensively, both internally and externally, much more so than other firms where Reed had worked. Cisco saw itself as having an “Internet Culture”; senior managers believed that this “Internet Culture” complemented and amplified their technology investment and they worked hard to inculcate it in the organization. Karen Horn, Director of Culture, said, “Going to the web is natural at Cisco. The Internet is the answer to everything.”

The company had a long history of being responsive to customers—early on, one of the founders had created a department of “customer advocacy”—and Cisco’s first foray into using the web to disseminate information was customer-driven. Customers were allowed access to Cisco’s internal web pages in order to get information about bug fixes.⁴ However, Cisco engineers had become concerned that competitors were getting into the web site in order to get more detailed information about Cisco products. In response, they supplemented the bug information system with a recruiting system. Barbara Beck, retired Senior VP of Human Resources and head of Human Resources from 1989 to 2001, recalled:

“We leveraged off the ability of our competitors’ engineers to get to our site detailing the bug fixes. We figured if they could get through, then we could use that opportunity to recruit them to work for Cisco. The engineers wrote a program that allowed customers access to the bug fixes but shunted everyone else to a site that posted job openings at Cisco. We put every job on the Internet. It was a way to get access to clever people; we still look for people who can make a difference.”

The web remained an important tool for customer service, and having customers transact much of their business on-line saved the company a considerable amount of time and money. Cisco calculated that the delivery time on orders had been reduced by five weeks and that the order error rate had declined to under 2%, down from 33%. In fiscal year 2000, Cisco estimated that self-service technical support saved the company \$173 million; online customization of software, \$151 million; electronic software downloads, \$118 million; and downloadable product documentation, \$64 million.

Another early application that Cisco migrated to the web was the employee directory. In the company’s early years, it was hiring employees so fast that printed phone directories were obsolete within months. The engineers created an on-line directory that quickly became used throughout the company, making the printed directories superfluous. Putting the directory on-line, however, provoked discussion about who should have access to what information and which information was proprietary. Beck said: “We started having discussions around trust. For

⁴ Customers still had the ability to get bug fixes from the Cisco web site. Among other things, customers could also configure and order their systems, and download specifications and operating instructions over the web.

instance, at that time, recruiters paid a lot of money for an organization chart. We decided the reward was worth the risk that came with making information easily available.”

By the time Reed was hired at Cisco, the employee directory had moved beyond being an application administered by the employees themselves to one that was centrally maintained; the data in the directory was derived from the PeopleSoft system used for personnel administration; thus, the employee information in the directory was accurate and timely. Besides personal contact information (e-mail, phone, address), the employee directory included organizational information, allowing the user to see where in the Cisco hierarchy an employee was located, what the employee’s reporting chain looked like, and who reported to the employee. (See **Exhibit 3** for a screen shot of an employee directory record, and **Exhibit 4** for a screen shot of a reporting chain from an employee record.) Employees were able to change or update their own contact information when they changed jobs or were given promotions. (See **Exhibit 5** for the user-editable fields.) In addition, the directory record also listed the employee number, an indicator of how long an employee had been at Cisco (employee numbers had started with “1” and were assigned in numerical order so that employees who had been hired early in Cisco’s history had lower employee numbers).⁵

Reed found the employee directory very helpful for navigating Cisco’s large, growing, and dynamic set of fellow employees. She was able to look up e-mail addresses, figure out who reported to whom, and see what an employee looked like before she went off to meetings. Information in the directory was continually updated, making the directory a useful tool to HR for conducting organizational analyses; the directory showed the size of a manager’s reporting organization, who was in the organization, where they were located, and job titles of the employees (job titles at Cisco, for the most part, were standardized throughout the organization and thus, indicated the employee’s level in the organization). During the recent downturn, managers used the directory to help them plan the layoffs because it gave them a current snapshot of the organization. Reed couldn’t count the number of times in a day that she referred to the on-line directory because using it was second nature. In an average month, the employee directory received 4 million hits.⁶

Cisco’s early decision to make information available was facilitated by the development of the web. The internal web, or “intranet,”⁷ allowed Cisco to distribute company and employee data globally, and at the same time to manage and control its use centrally. Rebecca Jacoby, Vice President of Manufacturing Planning and Systems, said “The web places flexibility on the front end where the customer or client sees it while maintaining the data in the background. It preserves data integrity in a client-server environment which has typically not had that integrity.” The web allowed Cisco employees, suppliers, and customers to get the information they needed without compromising the data.

By mid-1999, Cisco had put most of its transactions and company information on the web. Cisco restricted access to some information according to need (for instance, sales people

⁵ Most employees at Cisco did not set up personal web pages; the employee directory seemed to capture most of the personal data that employees found useful. In addition, the directory was quite easy to search while there were no searching capabilities for personal web pages.

⁶ Cisco estimated each web directory inquiry was 5 seconds faster than a paper inquiry and that using the web saved Cisco \$0.07 per web directory inquiry.

⁷ An intranet is a private internal network within an organization. It operates like the Internet in that a web browser and other network tools access the internal web pages and sites. Intranets are protected by firewalls, which keep out unauthorized users. People on an intranet may also be connected to the Internet. Related to a company intranet is the company extranet, a private network that connects an organization’s customers and suppliers to the organization.

had access to more specialized information than other employees did) but made much of the company information generally available, in contrast to many other companies in the Bay Area. Reed noted:

“It was intimidating in the beginning. All the information that you need to do your job is on the web. Finding it, however, is sometimes a problem. You have to know how to navigate and how to search. Very little of the information that you need comes to you; you have to get it yourself. But it’s all on the web and it can be liberating not to have to go to others with every question you have.”

Self-Service Environment

Cisco began migrating all of its human resource processes to the web in 1994. Some processes took several months to migrate while others took up to a year. (See **Exhibit 6** for a timeline of the migration of human resource processes.) Other departments followed similar patterns. By mid-1999, most of Cisco’s internal workforce applications had been implemented on the web. Reed commented: “It’s a self-service environment at Cisco. You can do almost everything yourself on-line. There’s software to schedule meetings, reserve conference rooms, submit your travel expenses, and adjust your payroll deductions.” Mary de Wysocki, a senior manager, commented, “This technology reduces headcount and creates productivity savings. The use of a web-dependent environment, however, puts a lot of responsibility on the employee.”

New Cisco employees were immediately thrust onto the web. All new employees started on a Monday morning, spending that first day in a new-hire orientation, learning the systems in place at Cisco and being told all of the necessary web sites to visit. The new-hire orientation was an opportunity to show the new employees how work was done at Cisco and during the daylong orientation there were presentations about all of the functional areas within Cisco, the technology infrastructure, and the human resources site.

The human resources site on the Cisco intranet (known as the CEC – the Cisco Employee Connection) was the first internal web site that most employees visited and thus was a good introduction to Cisco’s commitment to automating its business processes: all human resource paperwork was done on-line. (See **Exhibit 7** for the employee toolkit section of the Cisco human resource web page.) Even long-time employees continued to visit the human resources site. Not only was it the site where all human resource forms were filled out, but it was also where important information was located on the company intranet. Barbara Siverts, a manager and long-time employee, noted the difference that the web had made to new employees: “When I started, at new hire orientation we got a ‘cheat sheet’ that told us where to go to get things done and who to talk to get important information. I kept that cheat sheet for years and then one day, I noticed that I never referred to it because I could find everything on the web.”

Each department had an additional orientation for their own employees, and employees were encouraged to go to orientations outside their department. Employees were assigned a mentor in their department, and had a phone and a computer waiting for them in their cubicle by the end of the day. Many employees were ready to start working the next day.

Workforce Applications

A suite of web-based workforce applications targeted toward managers gave managers more information about their employees; at the same time, these applications put more human resource responsibilities on managers. Many of the tasks that a manager needed to perform had

been automated and linked into one screen, known as the “manager dashboard.”⁸ The “Manager’s Toolkit” on the manager’s dashboard included:

- CafeReq – an on-line requisition tool
- CafeMOCHA – an on-line, paperless application for HR changes, including job and pay changes, employee transfers, stock awards, termination, and all other changes
- MAT – an export of the PeopleSoft database which allowed managers to see salary ranges, as well as mean and median salaries for different employee categories
- ePM – an appraisal tool that allowed managers to do on-line employee reviews
- CafeCAP – an application that allowed managers to award money and/or stock instantly to their employees
- Web Letters – a tool for writing bonus letters and HR-type documents
- Insight – a head-count tool
- Span-of-Control – an application that calculates an employee’s span of control
- PTO Tracking – an application that allows managers to keep track of an employee’s paid time off
- Universal Proxy – an application that allows a manager – going on vacation or out on leave – to assign a proxy to operate selected portions of the “Manager’s Toolkit” on his or her behalf

When managers reviewed their employees twice yearly, they were able to pull up, for each employee, an account that included information about salary and bonuses, training classes taken, vacation accrual, a job title history, any merit increases, and personal data. With these tools, managers were able to assess employees individually and as a group. Reed noted “These tools save a lot of time during employee evaluations. I can iteratively assess my employees as individuals and as a group, and I can rely on the data to be current.”

Cisco found that these workforce applications saved money. Before these applications were deployed, each Cisco manager spent nearly 120 hours each year reviewing his or her employees and their compensation. Cisco estimated that each manager saved over 25 hours a year using these web-based workforce tools, resulting in overall company savings of over \$7 million.

The workforce applications not only changed the work of Cisco managers but also transformed the role of Human Resources in the company. Kelly Lane, a Manager of Human Resources, observed “HR is not doing as many transactional processes; these have been offloaded to employees and managers. HR now acts more like business consultants, helping managers with recruiting, selection, training, and building skills internally.” She went on: “The tools are a product of our culture. Cisco has trust in its employees and has the belief that employees and managers should have data, which should help them as they strive for results.”

⁸ A “dashboard” was a web site in the Cisco intranet targeted to specialized users. The web site displayed links to useful internal web applications for that user. Cisco deployed a variety of dashboards; for example, there was a dashboard for managers, one for employees, and one for human resource personnel.

Client-Funded IT

Cisco used a model of client-funded IT whereby all IT initiatives were paid for by the functional department (e.g. human resources, finance, manufacturing) instead of by a centralized IT department. IT was not a stand-alone department but had relationships with all the functional units in the company so that the IT employees had a dual reporting relationship, to the functional department that they were part of and to the head of IT. The IT department promulgated standards and oversaw the work but the functional department requested the work. Rebecca Jacoby said, "All the major functions have IT partners. IT is part of the business; it's integrated with the business. The functional units include IT in their budgets and often IT is a reflection of the business."

This IT approach kept IT spending aligned with the goals of the business unit because the business units always led the projects and over time the IT projects had become far more disciplined and far more visionary. Business units got the systems they wanted to help run their business more efficiently (within the realm of Cisco's standards) but they had to pay for them directly. This approach did not constrict spending on IT but did encourage careful thought about how IT spending would affect the business unit and the company bottom-line. Cisco didn't feel the need to develop all of its IT applications in-house; if another company could provide a well-written program that met Cisco's needs for an acceptable price, Cisco would buy and deploy it.⁹

Management by Exception

The design of the employee workforce applications also affected Reed's managerial responsibilities. As part of her previous management jobs at other companies she often made many administrative decisions, while at Cisco she found that the internal applications automated many of the day-to-day management decisions. At Cisco, Reed observed, she was responsible for making decisions about the exceptions rather than the rule.

Her experience with the travel reservation system and the expense system illustrated when Reed's managerial responsibilities came into play. The typical firm controlled its travel expenses by focusing on the approval process: employees needed management approval before taking a trip. Cisco had instead focused on the set-up process. (See **Exhibit 8** for a comparison of Cisco's travel and expense systems to the systems used at a typical large company.)

Cisco allowed employees to book their own travel and select from any of the pre-approved vendors for airlines, cars and lodging. As part of their effort to automate the travel and the expense system, Cisco had entered into a partnership with American Express. All Cisco employees were issued an American Express card.¹⁰ When employees needed to make a trip, they went to the travel site - the Cisco Travel Network - on the company intranet, which was administered by American Express Travel Services, and entered their travel destinations and the dates they wanted to travel. The travel site displayed airline flights in order of price and airline (Cisco had become partners with two airlines, a move that gave it preferential prices). Employees then booked the flight on-line and it was charged to their American Express credit card. They could do the same thing with hotel rooms. Employees used the American Express card for all of their expenses while they were on the road. (See **Exhibits 9-11** for examples of web pages seen when booking a trip.)

⁹ For example, Cisco had bought and deployed Oracle database and financial software, PeopleSoft human resource software, Ariba's procurement system, Resumix, and Saba learning software.

¹⁰ Though Cisco deposited reimbursements into the employee's American Express account, the cardholder, not Cisco, was responsible for the bill.

Reed never pre-approved her direct reports' travel plans before they went out on the road and she never had to authorize their travel expenses if they fell within Cisco guidelines. If, however, one of her employees selected an airline, hotel, or car rental company not on the pre-approved list of vendors (for example, he or she had frequent flier miles on a particular airline), the choice was allowed to go through the system but the employee had to justify the decision and an automated email was sent to Reed, who then had 48 hours to disapprove the off-the-list choice. For the most part, as long as the exceptions cost about the same as the rule, managers authorized the exceptions. If a manager did not make any decision within 48 hours, the exception was considered approved.

The use of the American Express card also streamlined the reimbursement process. After returning from a business trip, the employee went to the travel site on the company intranet. Expense reports were also filed from this site, though with a different application known as METRO. The credit card statements were on-line and the employee was able to "drag and drop" line items that were business expenses from the statement to the expense report. As long as the employee booked one of the least expensive flights on a partner airline, stayed in a hotel that had a partnership arrangement with Cisco, and had other expenses such as cabs and meals that were within the *per diem* guidelines set by Cisco, the expense report was automatically approved, with an email sent automatically to the manager. Cisco then sent the expense reimbursement directly to the American Express account. Cisco audited a random selection of expense reports, certain expense categories, and any expense that fell out of the guidelines. For tax purposes, employees had to put their receipts in an envelope and send them to Finance. If an employee's expense report was pulled for audit and the receipts for an expense report were not on-file, the auditors put a hold on the employee's expense reimbursements until all the supporting paperwork for the expense report was filed.¹¹ (See **Exhibits 12-15** for examples of a complete expense report submission.)

Managers at Cisco did not enter into the travel or expense process unless there were exceptions. Many of the workforce applications operated in a similar fashion to the travel expense system, although different guidelines were in effect for different categories of expenses. For instance, Reed had to approve the purchase of all special office supplies and business cards that her direct reports ordered (Cisco maintained supply closets with a standard set of office supplies in each building).

Reed observed: "Cisco decentralizes many of the organizational activities. It's this decentralization coupled with good guidelines and good business processes that make it hard to stray." Donna Soave, a senior manager, said, "We like to have as little structure as possible in order to encourage innovation, agility, and flexibility. You have to adhere to certain standards but everything else you are empowered to do."

Cisco found many organizational benefits associated with the implementation of these types of applications:

- Reduced processing costs. For example, the average cost of an airline ticket booked through the travel system was over \$100 less than one booked by phone. There were also fewer calls per travel transaction. The automated expense system allowed Cisco to take advantage of timely payment and volume discounts on its credit card transactions; expense transactions declined in cost from \$24 to \$3 per transaction.

¹¹ Cisco had three auditors to oversee the entire travel expense system.

- Increased control. These applications made it possible to enforce Cisco's policies and guidelines automatically.
- Increased satisfaction. Employees liked having access to travel information at all times, as well as being reimbursed quickly. Managers had more information about the activities of their employees as well as a reduced workload because of the "management by exception" policies. Employees such as auditors and travel agents found that their workloads also decreased.
- Reduced cycle time. Fewer transactions needed reworking and outputs like reimbursements and itineraries were available more quickly.

Heavy Use of E-Mail

One of the effects of working in a technology company that conducted most of its internal and external business over the Internet and was located in a technology-oriented part of the country was that employees communicated primarily via e-mail and voice mail. Reed observed "I sometimes find it odd that instead of getting up and walking down the hall to talk to someone, we use e-mail."

The first thing that Reed did when she arrived at work was to check her e-mails and voice mails. She might have as many as 30 e-mail messages and 5 voice mail message that had come in overnight; receiving 60-70 e-mail messages a day was common. Cisco supplied every employee with a laptop (which, along with a docking station and monitor, served as the desktop system for many employees) and paid for home Internet access. Reed typically logged in to the company intranet as soon as she got home.

The use of e-mail, however, did not seem to diminish the number of meetings that Reed attended. Cisco used scheduling software that allowed others to schedule meetings with her and occasionally Reed found her day filled with back-to-back meetings from 8 a.m. to 5 p.m. At times she believed that she spent too much time in formal meetings. Reed said, "I prefer casual face-to-face interactions. They create rapport and build trust. Face-to-face interactions are not discouraged here but there isn't a lot of time for them."

The Culture Badge

Cisco was not immune to the economic downturn that followed the dot-com crash in April 2000. Cisco's sales and growth in the next year dampened to the point that, in an effort to cut costs, the company laid off 6,000 of its employees. Yet, even though Cisco's revenues had taken a tumble, managers and executives of other companies still came out to Silicon Valley to learn how Cisco did business.

Reed had worked at other high-tech firms before coming to Cisco, and while Cisco used information technology (IT) to a greater extent than many of those firms, Reed wondered if what really distinguished Cisco from those firms was the company culture, something she felt was very distinctive but hard to define.

She looked over her culture badge, which was one of the three badges issued to Cisco employees. The security badge, used to gain entry into Cisco buildings, had identification information and the employee's photo on it. The second badge had the mission and values printed on one side, and had the principles that senior management wanted to emphasize for the

upcoming year, the key concepts that they saw as underlying the Cisco culture, imprinted on the other.¹² The third badge displayed the fiscal year goals, and noted the 3-5 year goals for the company. (See **Exhibit 16** for scans of the second and third badges.) Reed considered each principle on the culture badge, wondering how what she thought of as the company principles related to the culture she experienced on a daily basis.

“Open Communication”

Cisco made much of its corporate information available to its employees and shared relevant information with suppliers and customers. Rebecca Jacoby observed, “We share much more information than anyone thought was prudent.” Pete Solvik, Chief Information Officer, said, “You give the employees themselves all the information. In a lot of companies, information is power. At Cisco, information is empowerment. Technology clearly plays a big role in doing this.”

The IT infrastructure was both sophisticated and integrated across the company (it also integrated its partners into the network), and its implementation made transparency possible. There were business rules codified in the IT infrastructure that described who got access to what information. For instance, all Cisco employees had access to key metrics such as customer satisfaction, overall revenue, and total costs, while more differentiated information was restricted. Customers only had access to product information such as how to configure a router, and suppliers were given access only to the sales data necessary for planning their inventory. For the most part, however, Cisco gave out more rather than less information.

Making information available created opportunities for communication. For example, the employee directory made all employee information available to all Cisco employees; the employee directory record of John Chambers, the CEO, showed all of his contact and organizational information and was no different than the employee directory record of the average engineer. This gave Cisco employees the ability to contact anyone in the organization that they needed to contact without having to go through managers or the chain of command.

Although information was generally available at Cisco, it was often undifferentiated in terms of importance and usefulness. Reed commented “You don’t get context on the web. There’s value in knowing who has the right information.” At times, it seemed that there was the perception that if some information was useful, more information was better. Reed also noted “Internally, Cisco doesn’t worry much about security and privacy.” Barbara Beck said, “Privacy and security have not been issues because safeguards have been built into the system.” While Cisco believed in transparency, Reed found that it was often hard to convince other companies with whom she was working of the value of making organizational information widely available.

“Empowerment”

Cisco’s employees had great latitude in doing their jobs. Pete Solvik remarked, “The goal of the IT is to empower the employee—to give them enough authority and access to information to do their own thing.”

Cisco employees were expected to take initiative. For instance, customer satisfaction was taken quite seriously. Reed said, “Employees are empowered to do right by Cisco and the

¹² Senior management met each year to determine the items that would appear on the Culture badge for the upcoming year. Culture badges were issued annually and often changed slightly from year to year. Cisco management hoped that the Culture badge would help employees keep the principles in the forefront of their minds when making decisions about the company and their work.

customer. We are expected to make decisions that make the customer successful and we are measured on the impact we have on customers.”

Taking initiative extended to deciding how one’s own work was to be done. Mary de Wysocki said “Every quarter you are held to objectives. It is very measurable. You’ve got to be able to lay out the scope, and how you will be held accountable. You really become better at scoping a project, understanding the levels of commitment, the dependencies. In some ways, you become a better planner.” Reed, however, noted about her work: “My goals have not been explicitly reviewed. I’m an expert in my field and I know what has to be done. Quarterly goals haven’t been necessary. However, people who are less savvy need more review.”

Many of the processes and systems that encouraged empowerment also gave the employees the ability to be flexible in where and when they worked. For example, the company issued laptops, implemented an intranet, and set up a wireless network so employees didn’t have to plug in to work. Donna Soave commented, “Where you work is transparent,” and Barbara Beck said, “We are trying to integrate the home, work, and family boundaries so that employees can become more flexible in the times that they work. Employees can do work at home and can take care of home issues at work.”

Empowerment carried costs. Reed observed, “There is the expectation that you will work at home; I don’t like to but I do it. I have to be vicious about setting boundaries. It can be hard to have a life.”

At work, there were also costs. Reed continued, “This is an intense, internally-focused environment. There is a feeling of constant connection here. I hate my pager because it, not me, manages my availability. People work long hours and don’t know how to say ‘no,’ although they could, and Cisco throws money at them for working long hours. I would rather have the time than the money. However, many employees hired in the last year¹³ are totally motivated by compensation. A lot of them thought they were going to become rich in four or five years.”

Despite the costs, Reed believed employees were committed to the company. She said, “For many employees, Cisco is their life. They are passionate and they achieve results.”

“Stretch Goals”

Setting and achieving goals were important at Cisco. Employees were held to a quarterly set of objectives—goals that were meant to be visionary, specific, and measurable—and employees were expected to achieve them. The goals that were set were the minimum and employees were encouraged to “stretch beyond” or exceed them. Reed said, “It is a sink-or-swim atmosphere. There are no excuses accepted for not planning or for procrastinating, although saying you misjudged the scope of the project is allowed. The tight time frames do encourage you to become a better planner.”

Employees at all levels were held accountable for achieving the goals that had been set. Reed commented, “Managers also have to achieve; it is ‘up-or-out.’ We had a new executive in my division who didn’t perform and he was gone within four months.”

Measurement was important in maintaining accountability and Reed noted, “We measure everything.” Important overall measures were customer satisfaction and profit but the

¹³ Cisco doubled its employees from mid-1999 to the end of 2000 in an effort to deal with its sales growth. Employees were given stock options as part of their compensation package; during that period, the unemployment rate was low, Cisco’s stock price had reached record levels, and options were used as an incentive to get people to join Cisco.

IT system allowed Cisco to measure and track a number of other indicators. Pete Solvik commented, “We measure people in a way that encourages them to have a laser-like focus on things they can impact. We want our measures, metrics, and approach to be focused.”

Some measures were followed hourly (e.g. orders) others daily (e.g. expenses), weekly (e.g. headcount), monthly (e.g. inventory turns), and quarterly (e.g. market share).¹⁴ Cisco’s information was so readily available it could close its books in less than a day.¹⁵ While many measures were available, Reed volunteered, “The link between the measures and succeeding here is sometimes nebulous.”

“Teamwork”

Mary de Wysocki observed, “This is a community of individuals but we can only achieve via teamwork and collaboration. Teams generate innovation at Cisco.” She went on, “But there is no collaboration on the fly unless it is a win for all the parties involved. We collaborate if it is in our MBOs¹⁶; then collaboration is part of the quarterly objectives.”

While Cisco used teams throughout the organization, individual success was also important. Reed noted, “This is a very individualistic organization. You need to be competitive and you have to know how to promote yourself.” Individuals were held to a tight set of objectives and significant responsibility was put on the individual to articulate his or her deliverables, identify the barriers to success, and manage expectations around those deliverables.

Although collaboration and teamwork were often the way that work got accomplished, Reed remarked, “Collaboration tools are not extensively used at Cisco and while we could put our work products on the web, we don’t necessarily do it. And there is no formal way to specifically reward teamwork on an ongoing basis at Cisco.” Mary de Wysocki noted, “The customer satisfaction score is one way that Cisco rewards teamwork. Bonuses are based on customer satisfaction and if everyone is not doing their part, customer satisfaction will go down. I can also use CAP awards¹⁷ to reward an individual or team that does an outstanding job.”

“Drive Change”

Cisco promoted fast-paced risk-taking. Decisions were made quickly, often with less than total information. Cisco operated in an industry where innovations happened quickly and spread rapidly. Barbara Beck said, “We get 80% of the information that we need and then we go. If we don’t take risks, we’ll get left behind.” Pete Solvik observed, “We believe in ‘ruthless execution.’”

Agility, the ability to change direction rapidly, was prized. In order to test ideas, employees often put together pilot projects that operated for several months and acted as experiments. Cisco tried to make sure that its incentives encouraged that behavior. Reed

¹⁴ Tim Reason “The Class of 2000: Winners of the CFO Excellence Awards,” *CFO, The Magazine for Senior Financial Executives*, October 2000.

¹⁵ The “virtual close,” as it is known, was quite a feat—completing a close in four days had previously been considered superior. It took five years of examining and altering their businesses processes for Cisco to achieve the “virtual close.”

¹⁶ “MBOs” stands for “management by objectives” and is a shorthand for the objective or measurable goals that an employee should meet within a given time period.

¹⁷ CAP awards were instant cash awards ranging from \$250 to \$1000. A Cisco employee could be nominated by anyone—employees, customers, or suppliers—for doing an outstanding job. The employee’s manager would look over the nomination and if he or she agreed, the employee would receive a cash award within 48 hours.

commented, "Mistakes are made here and they don't affect your career for life. The idea is to develop the highest quality project within a limited time frame and then deploy it if it works and get out soon if it doesn't." Donna Soave noted, "We learn from failures." Time-to-market, rather than perfect quality, often became the goal as errors could be fixed if the product or idea was a success.

This emphasis on quick decision-making using limited information created discomfort for some of the more recently hired employees. Sue Bostrom, Senior Vice President of Internet Business Solutions, said, "People who are methodical, thoughtful, and analytical may not necessarily fit at Cisco."

"Frugality"

Cisco's reputation for frugality dated back to its early years: The first CEO, John Morgridge, was famous for his parsimony. For instance, he decreed that everyone in the company would travel coach, an edict that still stood. Salesmen who had to travel to Asia complained about the policy but Cisco continued to pay only for coach fares (employees didn't have to travel coach but did have to pay for the difference between coach and the upgrade).

Cisco encouraged frugality in many ways. Hung on the walls of the cafeteria and break rooms were frugality tips (e.g. using a partner airline saved Cisco an average of \$100 per ticket, or booking conferences at a Cisco conference center rather than a hotel saved money). Cisco put recycling bins in the conference rooms, break rooms, and cafeterias. The break rooms were stocked with soft drinks and bottled water; bottled water, which was significantly cheaper than soda, was a recent addition after an experiment showed that people were more likely to choose it over soda, if given a choice. Frugality was even in evidence in the executive suite, which was furnished with the same cubicles used in the rest of the Cisco offices. John Chambers, the CEO, had a bit more room but his office surroundings were not luxurious.

The flat hierarchy (fewer than 5 levels) with large spans of control (10-20 reports per manager was average and managers typically also had operating responsibilities) was another indication of corporate frugality. Cisco was able to leverage its IT infrastructure to reduce employee headcount. Reed noted, "Cisco is a lean company. They walk the talk."

Another manifestation of frugality was Cisco's embrace of hardware, software, and networking protocol standards. Cisco used one make of personal computer, one make of server, and one make of database software. No other products were supported or purchased. Reed said, "Our CIO pushes standards ruthlessly." Implementing a limited range of software and hardware allowed the company to exploit economies of scale when purchasing, maintaining and troubleshooting equipment and software.

The implementation of IT standards extended to acquisitions, and mandating organization-wide consistency was instrumental in integrating the companies that Cisco purchased. For instance, when Cisco acquired a company, it immediately moved the company over to the Oracle database in use at Cisco; if the acquired company used a more advanced version of Oracle than Cisco did, it was rolled back to the version that Cisco was using.

Cisco had implemented a variety of organizational standards as well. For instance, Cisco's buildings at its San Jose campus had similar exteriors, similar layouts inside, and the same style of cubicles throughout. There were few signals that let people know what building they were in or what floor they were on (maps were posted in stairwells and on the intranet).

Practicing frugality didn't mean that Cisco didn't spend money. It did, however, make people aware of what they were buying and how those purchases could affect the bottom line. Reed said, "It changes what you need and what you buy. You ask yourself if you really need that item. When everyone is a stockholder, you don't want to waste company money."

"Quality Team"

Cisco tried to hire the top 10% of the employees that they interviewed and release the bottom 5% annually. Reed described her colleagues: "Just about everyone with whom I've had contact has been incredibly bright and very, very driven. It is truly amazing, considering the size of the company."

Cisco not only put effort into hiring good people, but also spent time and resources training them. There was a comprehensive new-hire orientation, specialized training for department like sales, and ongoing training for all employees. A Cisco employee, on average, attended six training classes a year, a third of which were web-based. Reed noted, "In the long run, I think the training provides a great return. It gives the employee the sense that you don't have to wait to get things done because you know you have the tools to do it yourself."

In Reed's opinion, the careful selection process and the investment in training that Cisco offered were practices that differed from those in other companies where she had worked. She said, "I think this is a lean company with good management and excellent co-workers, and I'm able to do interesting work here."

"Trust/Fair/Integrity"

When asked about the principles that underpinned many of Cisco's policies, employees often mentioned trust. Pete Solvik said, "Empowerment, communication, innovation and risk taking are clearly all big parts of our culture. And definitely trust and integrity. I don't think that these are necessarily linked with technology."

How much trust to give to employees was a topic of discussion early in Cisco's history. Barbara Beck talked about the decision to trust employees:

"We decided almost from the beginning that if we trusted our employees, we were not going to create policies for the bottom .2% of the employees that were out to screw the system. We were going to create guidelines for managers to do the right thing, and we were going to give them the context with which to make good decisions.

Once I hire an employee, I trust that individual has not joined this company in order to steal from us; I trust that he or she will make the best decision possible given the information about the context. I trust the employee as an individual to do what's in the best interest of the company."

The decision to trust employees laid the basis for relationships. Reed described how trust worked between managers and their employees:

"My employees have got to think that we're supporting each other, that we're all out to achieve that same goal. I think as the manager, I need to assume that they are doing right by the customer. I'm going to make sure that I'm providing my employees with the right information, the right support. But I also have to give them enough room to execute. And I think an employee has to assume that his or her manager is going to assign the right project, that the

manager is rewarding him or her appropriately, and that the employee is getting visibility, which is a reward these days as well. I do think this is a very trusting environment.”

She then talked about how technology and trust related to each other, saying “Take the Internet, it creates an opportunity for trust. No one's watching when you go. For example, we trust people will work from their home and we provide tools to enable them to do so.”

“Market Transitions”

Donna Soave explained “Our emphasis on market transitions is defined as seizing opportunities to gain market share during market transitions.” The economic downturn brought about changes in how this was done at Cisco. Before the downturn, Pete Solvik noted, “Within Cisco, there are some people that are looking at market disruptions and trends and directions, absolutely. But is there a company-wide process around that? No.” Cisco had used customer feedback and market intelligence as the basis for their decisionmaking. Mary de Wysocki said about the slowdown “We were used to positive change. The global spending slowdown has meant that we have to deal with negative change. We now do scenario planning.”

Besides becoming more aware of, and trying to take advantage of, changes in the market, Cisco attempted to deal with market transitions in creative ways. For example, they laid off 6,000 employees in an effort to cut costs but offered those employees an option that allowed Cisco to maintain ties. Employees who were laid off were given the opportunity to forego their severance package and spend a year working for a nonprofit group already associated with Cisco. Cisco would pay one-third of their salary, provide all of their benefits, and continue to give them their stock option awards. Cisco hoped to be able to rehire many of these employees as soon as the economy rebounded and many of the employees who took this option, hoped to be rehired at the end of their nonprofit stint.¹⁸

In addition to being creative, Cisco executives attempted to communicate with those who were to be laid off in a manner consistent with the way that they had communicated with employees. They used the web to disseminate information and moved quickly to achieve their goal. The company issued fair severance packages; a compensation consultant observed, “Severance packages have been improving in recent years but Cisco’s generosity here is still way ahead of the pack.”¹⁹

“No Technology Religion”

Cisco had “no technology religion” as the basis for its product development. They didn’t build proprietary systems and offered a range of products and solutions to fit each customer’s needs. Many of their customers required integration of different technologies and the flexibility to protect their legacy systems,²⁰ while taking advantage of new technology.

The use of open and standard protocols drove Cisco to differentiate itself on dimensions other than product features. Other companies could build competing products using the same protocols (the protocols were industry standards) and customers were able to compare

¹⁸ Kemba J. Dunham, “Employers Seek Ways to Lure Back Laid-Off Workers When Times Improve,” *Wall Street Journal*, B1, June 19, 2001.

¹⁹ Penelope Patsuris, “Cisco Sets the Stage for Severance,” *Forbes.com*, April 18, 2001

²⁰ www.computerwords.com defines a legacy system as a system in which a company has invested considerable time and money. An important feature of newer systems is the ability to work with these older systems.

equipment choices because of the standardization. Although customers valued consistency and standards, Cisco had to offer its customers something above and beyond a standardized product that fit their needs.

“Customer Success”

Pete Solvik said, “We are customer obsessed. I fundamentally believe that if we did nothing else but listen, react, and serve the customer, we would be successful. Here at Cisco, spending time with a customer is a higher priority than anything else. It is valued, it is recognized, and it is rewarded.” He reported that Cisco did almost no strategic planning but instead focused on serving customers. He went on, “We use technology to measure and track our interactions with customers. We’ve been able to increase the amount of customer contact by using the web, and our investment in IT is correlated to customer satisfaction.” Many of Cisco’s employees had bonus plans that were based, in part, on measures of customer satisfaction.²¹

There was an expectation of limitless availability when it came to serving a customer. Employees were expected to drop what they were doing and make room on their schedule when a customer had a problem or was seeking advice. Reed remarked, “There is an expectation of responsiveness here and not being responsive can hold you back.”

Customers seemed to appreciate the focus. A system administrator at one of Cisco’s customers reported “Cisco’s IT really supports customer service. If you call customer support with your equipment serial numbers, you will get immediate information about your equipment.” He added “Cisco also responds quickly to its customers in other ways. One day, a router failed and the network went down. I called Cisco and reported it. Their offices were only a couple of miles away and within an hour, they had put a new router in a van and driven it over.”

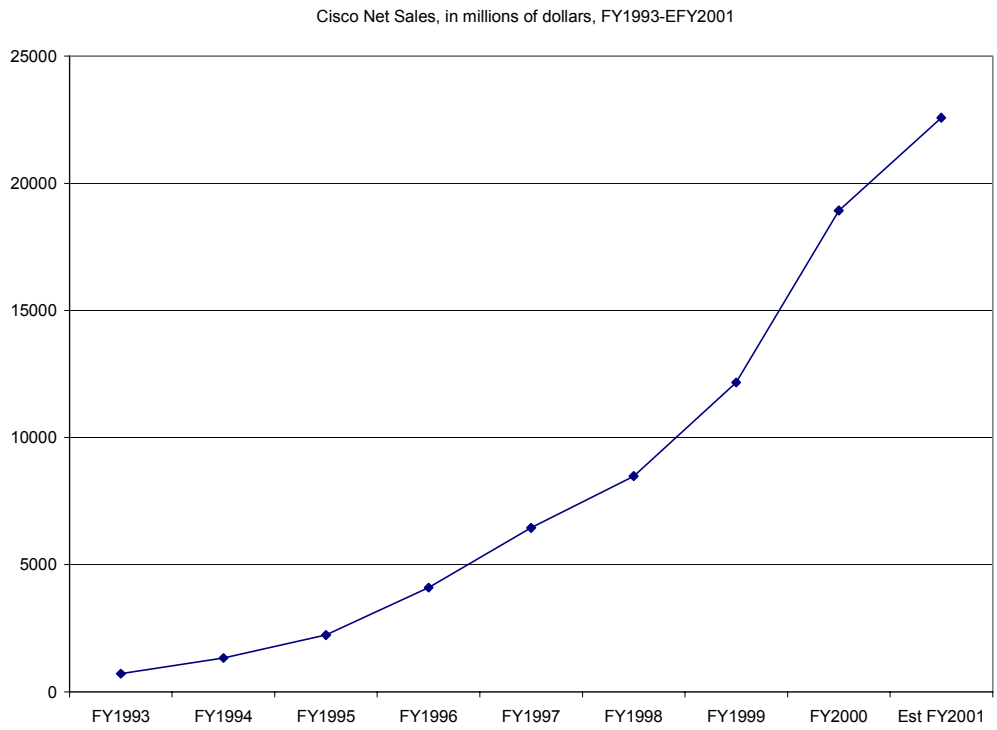
Transforming a Firm’s Business Practices

Reed put down her culture badge. She reflected that a focus on customer success was part of the Cisco way of doing things and that her upcoming meeting with the automobile executive was an example of how Cisco employees tried to help their customers succeed. As Reed got ready for her meeting, she pondered how other companies might implement applications similar to those used at Cisco. Cisco’s successful use of IT to transform its own business was not just a result of its technology choices. Cisco was committed to putting as much information and as many business processes on the web as made economic and organizational sense, yet they didn’t rush. Barbara Beck said, “You can’t just ‘webify’ systems, you have to set them up carefully. You have to think systematically and ask ‘What are we trying to do?’ Mistakes are made when we don’t think this way.”

Cisco had the IT capacity and competency to implement any number of internal IT applications. Yet Reed was unsure of what contributed to successful use of such applications: technical expertise, the funding model or adherence to company principles. Reed asked herself, “What resources would another company have to have and what would they have to do to successfully implement these types of systems and transform their business practices?”

²¹ The Senior Management Incentive Plan for fiscal year 2001, for example, was based on measures of individual performance, company performance, customer satisfaction, and company strategic performance. Bonuses for senior managers were targeted to be 40%-60% of base salary. For more information, see Cisco’s 2000 10-K.

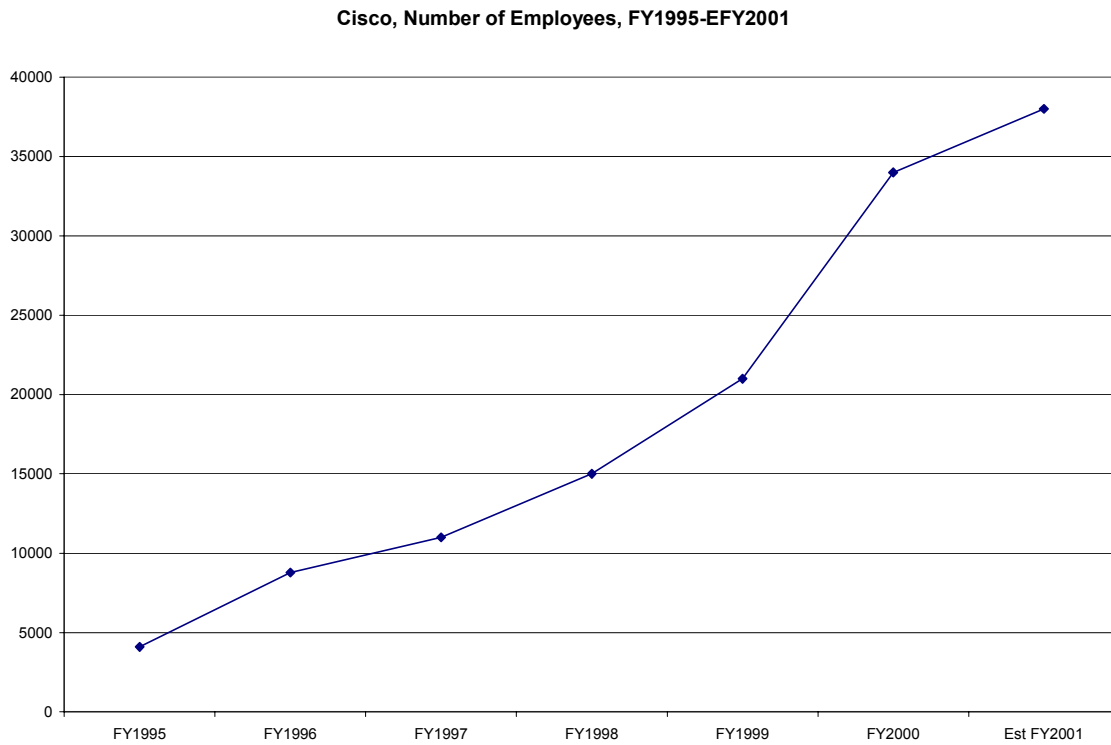
Exhibit 1 Cisco Revenue Growth: FY1993-EFY2001



Cisco operates on a July 1- June 30 fiscal year.

FY2001 revenues are estimated, based on a June 14, 2001 research report from Morgan Stanley Dean Witter.

Exhibit 2 Cisco Employee Growth: FY1995-EFY2001



Cisco operates on a July 1- June 30 fiscal year.

FY2001 numbers are estimates, and reflect the layoffs. At the time of the layoffs, in April 2001, Cisco had 44,000 employees. 6,000 of those employees were subsequently laid off.

Exhibit 3 Cisco Employee Directory: Employee Record

In the Quick Search function of the Employee Directory, several fields are searched with one entry, and wild-card searches are automatic:

- First Name
- Last Name
- Nickname
- User ID
- Phone Number

In the Advanced Search function, all fields can be searched, and several fields can be searched at once. Wild-card searches are not assumed.

John Chambers  [vCard](#)  [Reporting Chain](#) 22 Reports 1 2 3



Contact Information

Userid	chambers	Mail Stop	SJC10/5/4
Telephone	xxxxxxx	Street Address	300 East Tasman Drive
Voice Mail	xxxxxxx	City	San Jose
Fax Number		State	CALIFORNIA
Mobile Number		Country	United States
Pager Number		Zip	95134
Epage	Epage chambers	Building - Floor	xxxxx
		Cube Number	xxxxx
Personal URL:		Group URL:	

Organizational Information

Title	President/CEO	Group	Office of the President
Manager	John Chambers (chambers)	Department Number	020079500
Employee Type	Regular	Employee Number	511

*Note: Dummy data has been added where private information was reported.

In the employee record, the employee’s basic reporting structure is represented. By clicking on the “Reports” button, you can see the employee’s basic reporting structure represented with the ability to drill down for each report in a new browser window. (See **Exhibit 4** for a screen shot of part of a reporting chain.)

Exhibit 4 Cisco Employee Directory: Employee Record Reporting Chain

John Chambers Direct Reports

▶ Allred, Douglas	xxxxxxx xxxxxx	Sr VP, Customer Advocacy	Customer Advocacy Administrati
▶ Bartz, Carol	xxxxxxx xxxxxx	Board Member	Office of the President
▶ Beck, Barbara	xxxxxxx xxxxxx	Sr VP, Human Resources	Executive HR
▶ Bostrom, Sue	xxxxxxx xxxxxx	Sr VP, IBSG	IBSG Admin
▶ Carter, Larry	xxxxxxx xxxxxx	Sr VP, CFO	CFO
▶ Charney, Howard	xxxxxxx xxxxxx	Sr VP, Office of the President	Corporate Marketing - Office o
▶ Cirillo, Mary	xxxxxxx xxxxxx	Board Member	Office of the President
▶ Daichendt, Gary	xxxxxxx xxxxxx	Executive VP, WW Operations	World Wide Sales
▶ Fox, Keith	xxxxxxx xxxxxx	VP, Corporate Marketing	Corporate Marketing - HQ
▶ Giancarlo, Charles	xxxxxxx xxxxxx	Sr VP/GM, ComLOB/CLOB	Commercial LOB - Senior V.P.
▶ Gibbons, James	xxxxxxx xxxxxx	Board Member	Office of the President
▶ Gross, Debbie	xxxxxxx xxxxxx	Exec Admin Asst	Office of the President
▶ Kennedy, Kevin	xxxxxxx xxxxxx	Sr VP/GM, Service Provider LOB	SPLOB Admin Kennedy Dept
▶ Mazzola, Mario	xxxxxxx xxxxxx	Sr VP, Enterprise	New Business Ventures - Admin

*Note: In this record, only part of the reporting chain is displayed.

*Note: Information includes phone numbers and links to email. Dummy data has been filled in to protect the privacy of the individuals.

Cisco uses this format in lieu of an organization chart; it is not a matrix management structure. Note that you can drill-down for each report through new browser windows.

Exhibit 5 Cisco Employee Directory: User-Editable Fields

- User-editable fields are kept to a minimum.
- The employee directory is not the database of record.
- User authentication is required for modification.



You can change your pager number, fax number, mobile number, and work location records here. Pager number, fax number and mobile number as well as your preferences will be updated immediately. Work location records will not be updated immediately in the directory. Your changes to work location records will be reflected in the directory within 48 hours. For other record changes, see the [help page](#).

Please note that floor and cube number are only maintained in San Jose, RTP, and Chelmsford.

Fax Number:	<input type="text"/>	Mobile Number:	<input type="text"/>
Pager:	<input type="text"/>		
Building	<input type="text" value="SJ-12"/>		
Floor:	<input type="text" value="1"/>	Cube Number:	<input type="text"/>
Personal URL http://	<input type="text"/>	Group URL http://	<input type="text"/>
Publish Mobile Phone	<input type="text" value="Yes"/>	Publish Pager	<input type="text" value="Yes"/>
Publish Picture	<input type="text" value="Yes"/>		
<input type="button" value="Update"/> <input type="button" value="Clear"/>			

Exhibit 6 Timeline of Cisco Human Resource Processes Migration to the Web

Month Implemented	Year Implemented	Human Resource Process
	1994	WebViper enables web-based lookup of employee information
November	1995	Benefits Open Enrollment enabled
	1996	WebViper to Directory launch
January	1996	24/7 availability of Web Benefits system
March	1996	MAT Version 1 (Client Server)
April	1996	Employee stock information on the web
August	1996	Address change form is put on the web-auto interfaces to HR system
December	1996	PeopleSoft Implementation begins
February	1997	Metro (Travel & Expense system)
April	1997	MAT is web-enabled via Citrix for the U.S.
October	1997	PeopleSoft goes live on the global system
December	1997	Café Req goes live in limited usage
April	1998	MAT goes global
December	1998	First version of CAFÉ CAP on-line
March	1999	CAFÉ CAP released for all U.S. on Plexus work flow
May	1999	PeopleSoft upgraded to Version 7.5
August	1999	Benefits system converted to Healthcon ASP Ecosystem partner
October	1999	WebLetters streamlines letter distribution process
December	1999	MOCHA project begins
March	2000	Metro II (Extensity) EMEA launch
November	2000	MOCHA goes live
December	2000	Span of Control application
March	2001	ePM (performance management)

Exhibit 7 Cisco Employee Connection: Employee Toolkit on Human Resources Web Page

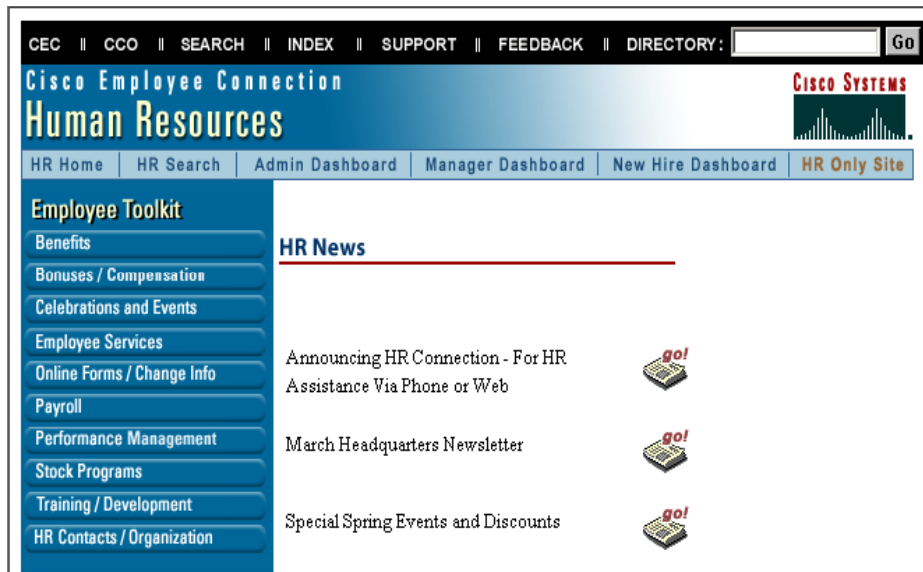


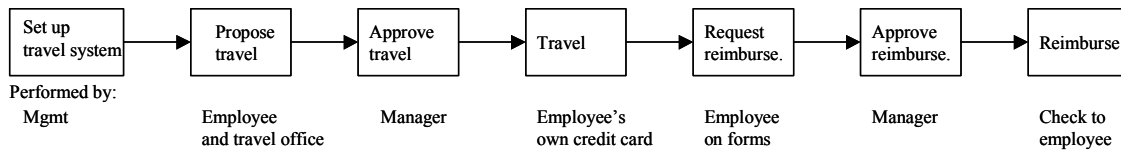
Exhibit 8 Travel and Expense Reimbursement Process

A typical process at a large firm would involve the 7 steps listed in the table below.

	Typical	Cisco
Set-up	Guidelines, budgets	Guidelines, budgets, pre-approved vendors
Propose travel	Employee calls company travel agency	Employee books own travel online
Approve travel	Manager approves in advance	Only if not on the vendor list
Travel	Advances, employee credit card	Company credit card
Request reimbursement	Paper submission to manager	Online, with receipts in parallel
Approve reimbursement	Manager	Only if outside guidelines
Reimburse	Company pays employee	Company pays credit card

Note that the typical firm controlled its expenses by focusing on the approval process while Cisco focused on the set-up.

Typical business travel and reimbursement process



Cisco business travel and reimbursement process

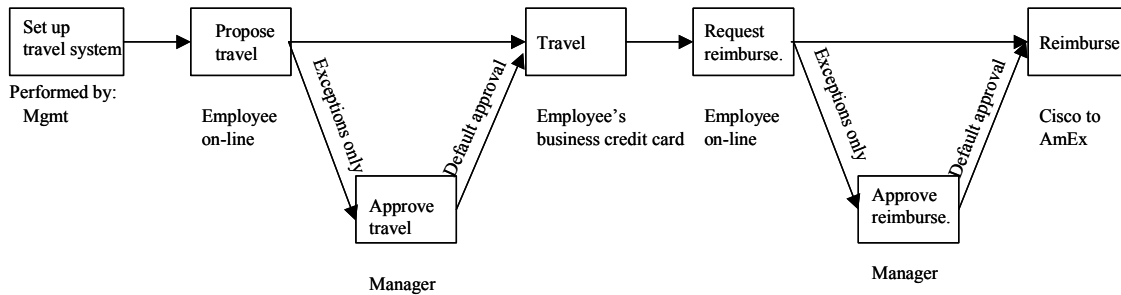


Exhibit 9 Cisco Travel System: Flight Selection

SELECT

LEG	FLIGHT	DATE	DEPART	ARRIVE	CLASS
1	British Airways 342	Jun 26	8:20 am LHR	11:25 am NCE	Business
2	Air France 3492	Jun 27	8:10 pm NCE	9:15 pm LHR	Coach

Your Original Choice - 1184.55 USD per person

Consider these Low Fare Options.

1	Bmi British Midland 193	Jun 26	7:30 am LHR	10:30 am NCE	Coach
2	Bmi British Midland 193	Jun 27	8:10 pm NCE	9:15 pm LHR	Coach

Alternate Low Fare Option #1 - 335.68 USD per person

1	Air France 1071	Jun 26	8:15 am LHR	10:25 am CDG	Coach
2	Air France 7714	Jun 26	11:45 am CDG	1:20 pm NCE	Coach
2	Air France 3492	Jun 27	8:10 pm NCE	9:15 pm LHR	Coach

Alternate Low Fare Option #2 - 730.95 USD per person

1	British Airways 342	Jun 26	8:20 am LHR	11:25 am NCE	Coach
2	British Airways 349	Jun 27	7:00 pm NCE	8:00 pm LHR	Coach

Alternate Low Fare Option #3 - 772.68 USD per person

1	Air France 3491	Jun 26	7:30 am LHR	10:30 am NCE	Business
2	Air France 3492	Jun 27	8:10 pm NCE	9:15 pm LHR	Business

Alternate Low Fare Option #4 - 817.55 USD per person

Employee is originally presented with a set of flights. Cost is set when flight is selected. Once a flight is selected, the system then presents cheaper options.

Exhibit 10 Cisco Travel System: Hotel Search

Once a flight has been selected, the system asks the employee if car or hotel reservations are needed. The system also presents notes about the hotel confirmation process.

If you are requesting to search by Cisco office location, click reference point.
**Please note special requests are not guaranteed. They will need to be requested again at check in.

Hotel Name	Hotel Chain	Street Address	Reference Point
------------	-------------	----------------	-----------------

City: NCE

Hotel Chain: (No preference), Accor Res Service, Adams Mark, Amerisuites, Best Western, Clarion Hotels, Comfort Inns, Concorde Hotels

Check In: Jun 25

Check Out: Jun 27

Special Requests: (No Preference), non-smoking room, king bed, high floor

Sort Results By: price (lowest to highest)

Display up to: 9 properties with availability

Search For Available Hotels

July 2001
S M T W T F S
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

Next months

Search for HOTEL by name, address or nearest Cisco Office

Cisco main sites and remote locations are built into CTN as reference points

Special cancellation policies will be noted in the results, along with room rates, distance from the airport to the hotel, and whether each hotel listed is a Cisco preferred provider.

Exhibit 11 Cisco Travel System: Payment Page

Payment Information

Credit Card Type: American Express

Name on Card:

Credit Card No.: XXXX XXXXXX X1000

Expiration Date: 03/03

Credit card data For reserving car/hotel

When lowest fare is not chosen employees are required to document reason

Travel Policy Information

Please select a reason code as an explanation for deviating from travel policy.

Air : (Choose a Reason and fill in explanation below)

- (Choose a Reason and fill in explanation below)
- Itinerary has been approved by CFO.
- I prefer the specified class of service.
- I prefer to fly a specific carrier.
- I prefer alternate airport/routing. Times do not meet business requirements.

Purchase this:

If you are a Cisco employee, the credit card in the payment information section will only be used to guarantee a hotel reservation. Your airline tickets will be centrally billed to Cisco.

If you are a contractor, airline tickets will be billed to the credit card number contained in the payment information field.

Or would you rather save the itinerary as a Trip Template?


Enter Trip Template Name: Save as



Employee can choose to PURCHASE or SAVE DATA as template

Purchase Itinerary Clear Itinerary

Exhibit 12 Cisco Expense System: Example of a Listing of Expense Reports for an Employee

METRO Expense Report System
Expense Report Selection



Search Conditions

Expense Report ID Expense Report Status All Trip ID

Starting Submit Date

Ending Submit Date

Search Values: Expense Report Status: All

Sel	Expense Report ID	Expense Report Status	Submit Date	Audit Status	Trip ID	Audit Flags	Receipt Flags	Additional Info Flags	Total Amount
<input type="checkbox"/>		Incomplete			N468849		Required		USD
<input type="checkbox"/>		Incomplete			N432503		Required		USD
<input type="checkbox"/>		Incomplete					None		USD
<input type="checkbox"/>		Incomplete			N758379		None		USD
<input type="checkbox"/>		Incomplete			N755567		None		USD
<input type="checkbox"/>		Incomplete			N593460		None		USD
<input type="checkbox"/>		Paid	01-MAY-2001	Complete	N873609	Policy, Auto	Complete	None	822.94 USD
<input type="checkbox"/>		Paid	22-JAN-2001	Complete	N796162	Auto	Complete	None	414.12 USD

Exhibit 13 Cisco Expense System: Example of an Expense Report










        					
Expense Report ID:		Trip ID:		Company: 020 Department: 070188 Project ID: 000000	
Purpose: Dec cellular,entertainment					
Start Date: 02-DEC-2000		End Date: 21-DEC-2000		Expense Report Status: Paid Expense Report Type: NON-TRIP	
Expense Item List					
				<input type="button" value="Show Detail"/> Total Amount: 871.41 USD	
Sel	Date	AMEX	Vendor	Category	Amount
	02-DEC-2000	No		Telephone - Cellular Calls	86.57
	12-DEC-2000	Yes	LINA'S PLACE	Entertain/bus meal - Customer / vendor	21.75
	21-DEC-2000	Yes	DOUBLETREE HOTEL SAN JOSE	Entertain/bus meal - Cisco Offsite	763.09
Expense Report Summary					
Categories	02-DEC-2000	12-DEC-2000	21-DEC-2000	Total	
Mileage				0.00	
Ground/Transportation				0.00	
Air-Employee Paid				0.00	
Auto Rental				0.00	
Lodging				0.00	
Pers Meals				0.00	
Telephone	86.57			86.57	
Telecommuting				0.00	
Entertain/bus meal		21.75	763.09	784.84	
Mtgs/Conf				0.00	
Other				0.00	

Exhibit 14 Cisco Expense System: Example of Expense Report Status and Audit Flags

METRO Expense Report System
Expense Report Selection

CISCO SYSTEMS

MAIN HELP

Search Conditions
Expense Report ID Expense Report Status Trip ID
Starting Submit Date
Ending Submit Date

Search Values: Expense Report Status: All

Sel	Expense Report ID	Expense Report Status	Submit Date	Audit Status	Trip ID	Audit Flags	Receipt Flags	Additional Info Flags	Total Amount
<input type="checkbox"/>	venun01003	Paid	24-JAN-2001				Complete		79.79 USD
<input checked="" type="checkbox"/>	venun01002	Paid	21-JAN-2001	Complete		Random	Complete	None	129.64 USD

METRO System, Database: METRO
metro@cisco.com, (408) 527-2000, SJ-11/1, San Jose, United States.
Last Modified: January 27, 2001.

IS Finance Administration

Note the **Audit Flags**.
Random indicates that the expense report was randomly pulled for audit. Other categories of audit include **Auto** and **Policy**.

Exhibit 15 Cisco Expense System: Manager Notification of an Expense Report Submission

From: metro@cisco.com [mailto:metro@cisco.com]
Sent: Monday, June 11, 2001 11:41 PM
To: **MANAGER** @cisco.com
Subject: Notification of Expense Report Submission (XXXX)

*** DO NOT reply to this email. If you have questions or concerns then please FORWARD this message to metro@cisco.com or call the METRO hotline at (408) 527-2000 ***

Expense Report Number : XXXX Department Charged : 070132

Employee Name : XXXX

Start Date : 13-MAY-2001 End Date : 18-MAY-2001

Expense Amount : \$88.05

Purpose : May VPN Expenses

Policy Errors :

No policy errors


Message : The Expense Report has been submitted for the above Employee. If you'd like to view this Expense Report, click on the URL below. If you have questions or do not want this report to be processed for payment, please contact a local METRO Application Analyst as soon as possible. US- (408) 527-2000 or email metro@cisco.com Canada-(416) 306-7179 or (416) 306-7137 or email metro-can@cisco.com Australia-email oz-syd-payables@cisco.com

<http://expenses/FinAdm/Travel/METRO/cgi-bin/mr.cgi?E=ddormine01015>

[MANAGER]


Exhibit 16 Cisco FY 2001 Badges

The Vision and Culture images comprise one of the three badges issued to employees and the FY2001 Initiatives and Goals images comprise a second badge. The third badge, not shown here, is the security badge containing individual employee information.



Company Vision
Changing the Way We Work, Live, Play, and Learn.™

Company Mission
Shape the future of the Internet by creating unprecedented value and opportunity for our customers, employees, investors, and ecosystem partners.




Cisco
FY2001 Initiatives

- Delivery of D/W/V Internet business solutions
- Customer satisfaction—4.37
- Leadership in partnering/ecosystem
- Leadership in Internet capabilities... all functions
- Leadership capability expansion... 2x in 18 months
- Focus on profitability... revenue/expense leadership
- Leadership in effective teamwork... all functions
- Market share gains by product, LOB and geography

Cisco Culture

Quality Team	No Technology Religion	Stretch Goals
Teamwork	Empowerment	Trust/Fair/Integrity
Drive Change	Frugality Market Transitions	Open Communication
Customer Success		



Goals (3-5 years)

- Customer partner status—Success, satisfaction, and trust
- The Internet experts—The global Internet company
- The leader in New World data, voice, video solutions
- The IP technology leader
- Recognized for leadership, integrity, trust, and teamwork
- Leadership in financial performance—New business models, ecosystems, and empowerment
- #1 or #2 position in systems, software, markets, functions
- \$50+ billion in revenue—Profitability leadership