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Leading and Shaping the
Post-September 11 Corporation:
Observations and Three Firms as
Cases in Point
ITE Working Paper

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LEADING AND SHAPING THE POST-SEPTEMBER 11 CORPORATION

1. INTRODUCTION AND OVERVIEW

During the past few months, in the aftermath of the September 11 attack, the business community, especially in New York City and around the world to some extent, has had to come to grips with an environment that has changed dramatically. In New York City, according to a recent study by a team of consultants, the economic impact of the attack is estimated to be around \$83 billion. Several key sectors, which have been the mainstays of the New York City economy – financial services, media, and professional services – have been affected by the disaster. Indeed, many businesses in these sectors were dislocated and disrupted, resulting in an exodus of such companies from Manhattan. Moreover, the temporary loss of much of Manhattan's telecommunications infrastructure had a substantial impact on the ability of these companies to reach their clients and continue to conduct business in a normal way. Along with the September 11 attacks, the economy was already experiencing a worldwide slowdown as well as the effects of the demise of the Internet bubble.

While the physical rebuilding continues, most companies are now in the process of reassessing the new business environment. This White Paper will delineate some of the managerial challenges facing such companies as they not only focus on the immediate issues of business continuity but also think about future opportunities for growth. Using case studies of Deutsche Bank, CNN, and Cisco, three representative companies in the financial services industry, the media industry, and the telecommunications provider industry, this document will describe how these companies dealt with the immediate aftermath of September 11, as well as how they are going forward in the future. It will offer some lessons that could be helpful to companies in a wide variety of sectors as they shape the post-September 11 corporation.

2. MANAGERIAL ISSUES IN THE POST-SEPTEMBER 11 CORPORATION

In order to provide a framework for thinking about the post-September 11 corporation, five major issues will be explored in this paper:

- **Reassessing the Current Organizational Structure:** The pre-September 11 corporate structures were for the most part based on organizations residing in the same physical location. Managers could therefore control their organizations through face-to-face interaction and structure their projects to include members of various units who worked in the same building. In the post-September 11 corporation, this type of organizational structure may no longer be applicable since companies are dispersing their organizational units into different physical structures and opting for a more networked environment in which managers may have to communicate with employees who are telecommuting or are working in different physical locations. For example, a company such as Deutsche Bank, which was housed in several buildings in the Trade Center complex that were either damaged or destroyed, will no longer have all of their critical operations in one centralized location; rather, they have chosen a more distributed organization and will rely more on technology to connect their employees to one another. An emerging challenge

then will be to find the right balance between a decentralized and centralized organizational structure and make decisions about the optimal organizational structure in this new environment.

- **The Changing Nature of Decision-Making:** The physical dispersion of the members of once centrally located organizations may have a profound effect on the culture of such organizations and may necessitate a different type of leadership. Because of the nature of the post-September-11 corporation, managerial decision making, may have to be more distributed throughout the organization. Instead of top down decision-making, which was possible in a self-contained environment, employees might now have the opportunity to become more autonomous and participate more in the decision-making process at all levels. Leaders in this environment will need to be more “adaptive,” suggests Robert Kegan, a Harvard psychologist and rather than try to lead organizations from a unilateral perspective, they must provide a context in which all involved parties can be active contributors to the organization’s missions and goals.
- **Developing a Robust Technological Infrastructure:** In the newly configured organization, a robust technology infrastructure will be of paramount importance. Along with an upgraded, durable telecommunications infrastructure, technology can play a significant role in enabling better communications within companies, and between companies and their customers and suppliers. Some technologies, including videoconferencing and the extensive use of wireless devices, which have not been on the technological radar of major corporations, may become indispensable parts of this new technological infrastructure. Moreover, in the post-September 11 corporation, companies which have viewed technology as an auxiliary part of their corporate strategies may need to integrate technology more fully into their organizations in order to be successful.
- **Rethinking The Global Strategy:** An emerging challenge in the post-September 11 corporation will be to find the right blend of a global strategy with a more internally focused strategy. In the pre-September 11 environment, companies were expanding their reach to other countries and structuring their organizations accordingly. In the new environment, the global strategies of many organizations are being reassessed. Indeed, corporations like Merrill Lynch are already selling off unprofitable businesses in locations outside the US and going back to their so-called core competencies and. Other firms, such as Deutsche Bank, which have locations in both Europe and the US, have reiterated their commitment to a strategy that will continue to reflect a global viewpoint.
- **Continuing to Promote Innovation:** Since September 11, the focus of many companies has been on surviving the gyrations in the marketplace. While companies continue to innovate, many of them will be rethinking their strategies and not investing in innovation or providing a corporate environment where innovation can thrive. An emerging issue for managers entails finding ways to promote innovation while at the same time dealing with the short-term needs of the corporation in which there is an increasing emphasis on the “bottom line.”

3. DEUTSCHE BANK, AG

Overview of the Company

Deutsche Bank AG (DB), headquartered in Frankfurt, Germany, is presently the largest bank in Germany and the third largest bank in the world. With more than 950 billion Euros in total assets as of September 30, 2001, only Japan's Mizuho Holdings and Citigroup in the US surpass it in total assets. It employs more than 98,000 people in 2,300 branches scattered over 70 countries; 16,000 are employed in the United States. The New York City metro area alone hosts 32 branches employing some 12,000 people, of which only about 300 are German citizens. Through the first nine months of 2001, DB's profits were 3.7 billion Euros on revenues of 21.1 billion Euros.

Deutsche Bank is divided into two business groups: Private Clients and Asset Management (PCAM) and Corporate Investment Banking (CIB). These functions are duplicated within each of the geographically operational areas. Aside from operating standard retail banking branches in New York City, the primary focus of Deutsche Bank's New York operations is to provide investment services for both individuals and institutions. Toward this end, over the past two years DB has acquired several US investment firms, including Bankers Trust, National Discount Brokers and Alex Brown, creating Deutsche Banc Alex Brown, Inc., which offers brokerage, structured finance, mergers and acquisitions, and other investment services.

Initial Impact of September 11

Because the financial services industry is highly regulated, banks and financial service companies must have comprehensive policies and procedures in place outlining operations under various circumstances. Business continuity is a standard function in the industry, and at Deutsche Bank a ten person Business Continuity Management (BCM) team oversees all business contingency planning for the bank's entire Americas' operations. This includes all operations in the US, Canada and Latin America. For its NYC operations, DB's BCM plan was severely tested on September 11 and the BCM team has been extremely busy since then.

Although its primary operations in New York City are located in mid-town, the Bank did operate out of four buildings at or near the former World Trade Center (WTC): it leased space at 4 WTC, 4 Albany Street and 14-16 Wall Street and owns the building at 130 Liberty Street. Of DB's 5,000 employees working in these four buildings, all but two were safely evacuated. Four WTC was completely destroyed, 130 Liberty Street was severely damaged and minor damage was suffered to the building at 4 Albany Street. Within three minutes of the first plane impacting the North Tower, Deutsche Bank's business continuity plan was initiated.

Using the Sprint "teleconference bridge" that DB had previously put in place as part of its disaster recovery plan, the BCM team established a virtual command center consisting of available senior managers. Under the direction of this 40-50-person virtual command team, all DB employees were evacuated from the downtown offices by 10:00 AM, and per the BCM plan, were relocated to available office space within NYC and to a back-up operations center located in Piscataway, New Jersey. Notably, neither of the Americas' two Group CEO's (PCAM and CIB) were publicly evident that day, nor were any messages from corporate headquarters disseminated to employees. Instead, the virtual

command center took charge and led the evacuation and recovery through local managers.

Capable of accommodating 1,400 people, the previously unused Piscataway building had been established by Bankers Trust following the 1993 Trade Center bombing for just such an occasion. Consequently, DB's money transfer business from 130 Liberty was operating within three hours from the start of attack. Employees based out of offices at 14-16 Wall Street returned to their offices the following week. The building at 130 Liberty is still not suitable for habitation and it may never be. Its employees, along with those from 4 WTC and 4 Albany St., are still working out of alternate or temporary offices, or from home. DB expects that prior to the end of this year, all remaining displaced employees will be relocated into a 47-story building at 60 Wall St.

Long Term Business Consequences of September 11

The terrorist attacks did not stop DB from pursuing strategic initiatives started earlier in the year. In September, DB completed its acquisition of Scudder Investments from Zurich Group, adding to its strategy of building US investment services second to none. And on October 3, after a long and costly campaign, Deutsche Bank was listed on the New York Stock Exchange. DB's listing of globally registered shares on the NYSE (rather than American Depository Receipts, or ASRs) is seen to add additional prestige to the firm. According to Mayor Rudolph Guiliani, it also indicates "confidence in New York and confidence in the stock market." In securing its NYSE listing, DB painfully switched from international accounting standards (IAS) to US generally agreed accounting principles (US GAAP). Though time consuming and costly, European analysts have commented that this move puts DB ahead of European rivals still using IAS rules.

But all is not rosy for DB. Despite the strong revenues the bank has enjoyed this year in the face of a global economic slowdown (2001 revenues through nine months almost matched those in the corresponding pre-year period), its profits are down 49% in the three months from July to September. The grievous loss of life and property caused by the terrorist attacks have damaged DB financially as well, resulting in an asset write down of 408 million Euros. Costs to repair the buildings, expenses for the replacement of damaged fixed assets, relocation expenses and the damage due to business disruption have yet to be determined, though DB expects to recover these costs through its insurance policies. In addition, although in decline since the beginning of the year, telecom and technology stock values plummeted further after the attacks, depressing a large portion of DB's stock holdings (Deutsche Bank Alex Brown investment strategy focused largely on health care, media and telecom, technology, and real estate).

Like most businesses during an economic slowdown, DB is aggressively implementing cost reduction measures, including staffing reductions. As a result, DB has recently announced that it will lay off some 4,500 employees. But due in part to the success of the US investment business and DB's strategic plans for US expansion, and partly to marketing savvy and genuine compassion, DB's chief executive, Dr. Rolf Breuer, has stated that US employees will not be laid off. "Customers are open to signals of compassion, of commitment, of engagement with the financial community. They won't forget that," he said. With regard to DB's performance in 2001, Dr. Breuer remains cautiously optimistic. "All in all, therefore, we are still basically optimistic that we can report to you at the end of January 2002 on a 2001 financial year which was not easy, but, given the circumstances, still successful."

Rethinking the Corporation in the Post-September 11 Environment

▪ Disaster Recovery

Roseann McSorley, Director of the Business Continuity Management team at Deutsche Bank, said that the most important lesson learned as a result of the attack was that one should never underestimate how bad a worst-case scenario can be. By almost anyone's standards prior to September 11, Deutsche Bank Americas' disaster recovery plan was commendable. Understandably, perhaps only DB's London office had a more comprehensive plan in place. The contingency plans for the Americas envisioned the temporary loss of a single building. No one, either within Deutsche Bank or any other company, could have anticipated the catastrophic devastation or long-term results of the events of September 11. Ms. McSorley also stressed the importance of having fully wired backup facilities ready so that operations can continue without a hitch. Data redundancy, achieved through routinely backing up business data to both remote backup facilities and any alternate operations sites is also critical. From a BCM viewpoint, other important lessons include drilling employees on disaster recovery procedures and teaching them to be more adaptable to circumstances through an understanding that the best-planned scenarios may not always work under every possible situation. For instance, the evacuation procedure for the buildings in and around the World Trade Center, while ultimately necessary, was also dangerous in itself because of falling debris.

By all accounts, the evacuations on September 11 went remarkably smoothly, calmly, and professionally; and the recovery since then is proceeding just as well. That recovery is what most companies have been focused upon since the attack, but Deutsche Bank is now reassessing all of its various locations' business continuity plans as well. BCM teams have unrestricted access to senior management and staff, and teams across the various geographic locations are communicating more conscientiously with each other and working closely with the company's technology teams and third party IS and security providers to bolster systems against further attacks or disasters.

▪ Reassessing the Organizational Structure

From a physical location standpoint, DB has stated its commitment to remain in New York. But DB and other companies will avoid large concentrations of employees or critical operations within a given geographic location, preferring to disperse facilities rather than to "put all their eggs in one basket." Likewise, they are more willing to accommodate telecommuting and will reduce the amount of travel required for business meetings through a more comprehensive use of telecommunications and information systems capabilities.

Deutsche Bank's culture has been described as success-oriented and liberal. Its various geographic branches operate fairly independently from the company headquarters in Frankfurt, Germany. This culture of decentralization and of encouraging employee initiative proved invaluable during the events of September 11. As demonstrated in the military, a flat, well-networked, matrixed, task team-centric organization can more quickly adapt to unforeseen events. This type of structure also allows small groups or individuals to carry on without direction from superiors, a necessity when time does not permit the normal decision making process. Both a benefit and drawback of this type of organization is that it can lead to redundant functions and work products. Bean counters may find redundancy cost inefficient, but redundancy can be a business saver should losses like those from September 11 ever happen. How can a firm provide insurance

against constant disruption, whether that disruption comes from terrorism, competitors, new technology or global economic factors? Disaster recovery plans and standardized operating procedures, the products of a centralized Business Continuity Team, can help; but leadership, technology, and innovation also play key roles.

- **Leadership**

DB managers are now being trained to be more receptive to employees' needs. Nearly three months after the attack, DB Americas is still keenly focused on the special needs of employees, particularly those who were working downtown. For instance, Deutsche Bank and other financial services companies are reimbursing displaced employees for any added commuting costs and for personal items lost as a result of the attack. Some firms are also chartering ferries or providing shuttle buses to help employees get to work. Some are considering subsidizing commuting expenses for relocated employees. Deutsche Bank has pledged to continue this type of assistance as long as it is required, and managers are providing as much assistance as possible to all employees. The company has published employee assistance telephone and intranet hotlines. In the long term, this will likely translate into revamped human resources policies and new management training classes.

- **Using Technology Effectively**

Companies are tightening physical security and enhancing security of electronic data. Use of ID badges by employees and careful screening, badging, and escorting of all visitors are now more strictly enforced. Biometric security devices are under careful consideration. Devices such as thumbprint readers that restrict access to personal notebook computers work well to keep out intruders, but they also prevent system administrators from accessing crucial information that may be stored on an absentee employee's machine. Thus, biometrics and other security measures should be implemented in conjunction with disciplined back-up policies and data redundancy systems. Security may now also mean taking into account ventilation and fire protection systems, as much as is possible given existing building infrastructure.

Although currently hampered by the cost cutting required in this slow economy, DB plans to increase redundancy of electronic systems that handle data storage and transactions. Physical microfiche archives used by the payroll department (and still inaccessible within the damaged building at 130 Liberty St.) will be replaced by electronic data storage. DB is also increasing use of telecommunications and information technologies for distance work via teleconferencing, video conferencing (to a lesser extent), and distance computing via the company intranet for both telework and telecommuting. Implementation of a private intranet that had been planned for next January was pulled in to this November.

Electronic networking can help to optimize worker productivity and can facilitate e-learning within an organization. It can also enable companies to outsource peripheral operations or services and manage them via the Internet, thus allowing more focus on core competencies. DB is already placing more emphasis on telecom technology and the Internet to replace travel. Within the past month, a large number of employees, who would have normally attended an industry conference hosted in another city, instead viewed the conference at their desks using streaming video delivered via the Internet.

- **Global Strategy**

DB will continue its strategy of mergers and acquisitions. This strategy has helped the firm to enter foreign markets, in particular the U.S. market, thus increasing market share and revenue. It has also proved to be a valuable source of innovation, with the beneficial policies, procedures, technologies and business methods of acquired companies used by the new parent, DB, to its advantage.

Prior to September 11, the various acquired companies that largely made up DB's New York operations had not been truly integrated as Deutsche Bank entities, and many still operated from within their original facilities. Both of these characteristics proved a boon to business continuity after September 11 by allowing operations to function without direct control, by providing ample space as alternate facilities for relocation of displaced employees and by providing independent information and telecommunications systems for redundancy. Indeed, the Piscataway operations center inherited from Bankers Trust was critical to DB's continued operations during and after September 11. Going forward, some measure of independence will be maintained by these organizations.

- **Innovation Strategy**

The current economic climate and the events of September 11 have resulted in cost cutting across the board. This has affected the funding for innovation. But an austere environment can provide an incentive for innovation. Smart, innovative cost cutting becomes especially critical in order to remain competitively positioned and ready for the inevitable economic re-strengthening. In order to better secure operations and reduce costs, DB is digging in by concentrating more on core competencies and business fundamentals. Along with the unavoidable layoffs in Europe, some of the company's liberal mindedness is also being replaced by more centralized control.

On the other hand, the company is encouraging the type of initiative and innovation demonstrated by individual employees during and after the events of September 11. On and since that day, employees in NYC have shown remarkable flexibility and ingenuity in adapting to less than optimal working conditions. They have pulled together under adverse conditions and quickly pieced together makeshift systems and procedures to insure uninterrupted business operations.

Deutsche Bank is also committed to forging ahead with its online banking system, MaxBlue, and to delve deeper into M- and E-Commerce, although these initiatives may be slowed somewhat given the present cost constraints.

CNN

Overview of the Company

CNN is part of Turner Broadcasting System, Inc., which is owned by AOL Time Warner. In addition to other entertainment networks, Turner operates all of the networks in the CNN News Group (see Exhibit 1). CNN is the most watched 24-hour news network in the world. Along with CNN Headline News and CNN International, it is the world's only global, 24-hour news network, reaching more than a billion people worldwide.¹ CNN also has a network of websites around the world, which generate more traffic than any other news competitor.² CNN's culture has been characterized as "speedy" and run "with a profit motive in mind".³ It currently has its world headquarters at its center in Atlanta. Many of the sales and marketing teams are based in New York, and many

perform these functions across all of the Turner Broadcasting properties. CNN has 3,800 staffers worldwide with 300 correspondents outside of the U.S. and with bureaus at 43 locations throughout the world (30 outside the U.S.).

Six months ago, the press was writing about CNN's obituary. Having built its reputation and audience on breaking events such as the gulf War, the network had suffered an identity crisis in the absence of a solid, globe-straddling story. Executives at the company were desperately trying to compete with other cable news networks such as Fox News and MSNBC. CNN had slipped in its position and influence in recent years, and internal dissension and widespread personnel upheavals had demoralized its staff and diminished its influence.⁴ At one of CNN's channels, Headline News, there has been a movement towards a revamped on-air presence projecting more of an "entertainment" focus using younger reporters and flashier set backgrounds.

Initial Impact of September 11

None of CNN's offices were directly affected by the events of September 11, so there was no need to relocate employees or change operating procedures. However, like other media companies, CNN needed to deal with the threat of anthrax and beef up security procedures at its headquarters and bureaus around the world.

Besides the costs of physical operations, there has been a clear economic impact on CNN in handling the increased costs of news coverage since September 11. CNN's budget is already about \$700 million annually vs. NBC and ABC with \$400 million and \$500 million, respectively. One analyst estimates that these budgets will need to increase by 25% to 35% over the next few years to create new bureaus abroad, boost technology and widen coverage.⁵ Eason Jordan, CNN's head of news gathering, says that CNN has raised its incremental spending about 10-fold since the crisis erupted, noting that "money is not a big concern at a time like this."⁶ Of course, AOL Time Warner, CNN's parent company, has pledged that CNN will have unlimited funds to cover the war on terrorism, but a for-profit entity can only do this for so long.⁷ Another option is for the networks to pool some of the news coverage costs. Indeed, this has been in discussion for some time and may be revived as the networks begin weigh the financial challenges ahead of covering this story.

Recent discussions, however, show that CNN may not be part of these cooperative efforts. CNN is exploring ways to squeeze more out of its existing overhead. In the wake of layoffs earlier this year, CNN is asking its field staffers to do more than one job: camera operators, for example, would be asked to report, edit and even write in addition to shooting pictures.⁸ Mr. Jordan says this strategy is already paying off.

The cost issues raise a clear problem for profitability since ad revenues were already weak before the attacks and have continued to weaken since them. Immediately following the attacks, CNN was unable to capitalize on an audience that rose to 10 times normal levels, averaging 3.4 million viewers per day,⁹ because it declined to run any commercials until September 17 at 6 a.m.¹⁰ Since then, CNN has been trying to convince advertisers to pay higher rates because of the larger audience. It has presented syndicated research suggesting the most desirable, higher-income viewers are more likely to accept a faster return to normal commercial activity in news shows, and it has sold more of the inventory it usually keeps on reserve.¹¹ Larry Goodman, President for sales and marketing at the company, has pointed out that President Bush has made it a daily mantra to get back to normal life, so advertisers should too. He

notes that the war will be going on for a long time, so withdrawing to the sidelines to wait it out may gravely harm companies dependent on the sales stimulation that ads provide.¹² Despite these efforts, negotiating where ads can or can not run further complicates the sales environment and requires additional resources. At the end of this year, CNN will still likely be at a net loss.

Rethinking the Corporation in the Post-September-11 Environment

It has been widely quoted that CNN is at its best during wartime – that war plays to CNN's strengths of hard breaking news coverage. Indeed, the events of September 11 have driven viewers back to CNN in droves – and to the same CNN that truly put CNN on the map during the Gulf War. But little has been written about the organization behind those strengths. Nor has much been said about whether the current organization can continue to grow in the post-September-11 environment.

▪ Reassessing the Organizational Structure

Part of CNN's strength in responding to September 11 was its organizational structure. CNN has journalists and bureaus around the world – more than any other network and has doubled its number of employees to 75 in Central Asia and the Middle East, including 40 in Pakistan and 15 in Afghanistan.¹³ CNN also has a very strong ability to obtain exclusive stories. Thus, it acquired some of the best amateur video taken during the first hours of the attacks, and Nic Robertson was the first and, for a while, only television correspondent reporting from anywhere in Afghanistan. Footage from Afghanistan is exclusive to CNN – an agreement by broadcasters and cable networks to share footage does not extend to foreign images, so many of CNN's competitors have had to settle for reporting from Pakistan.

▪ Leadership

Walter Isaacson, who was recently named Chairman and Chief Executive of CNN News Group, issued a memo while the ruins of the WTC were still smoldering. In it, he directed CNN reporters to balance their coverage, to supply the context for the American bombing raids and to beware being used by Taliban propagandists.¹⁴ He indicated that there would be less and less coverage of the terrorist attacks and their victims, just as the networks were about to be flooded with video coming out of Afghanistan showing bombings and civilian casualties. He concluded that something had to be done to ensure that the atrocities that had caused the U.S. to go to war not be obscured. So, he and Rick Davis, CNN's head of Standards and Practices, directed that each time a reporters discuss what is going on in the war, they must keep in mind the actions that got the U.S. there in the first place.¹⁵

Chris Cramer, who runs CNN International Networks, is relishing the current challenge of managing in a post-September 11 environment. He indicated that, unlike other media organizations, CNN's coverage is seen around the world and therefore CNN has a huge responsibility to report in a balanced and non-propagandist manner.¹⁶ In fact, CNN has assembled a group of senior executives since the attacks to decide whether breaking developments should be aired or not if they are both provocative and of questionable news value.¹⁷

▪ Using Technology Effectively

One of CNN's major strengths has been its news gathering technology. The videophone has enabled CNN to get live footage to viewers from the most remote locations. Small, portable and costing only \$7,500, videophones – which can send pictures over circuits

normally used to transmit audio – are transforming the way reporters do their jobs. Conventional satellite equipment is far more expensive and is normally too heavy for one reporter to transport, whereas videophones can be set up or dismantled in minutes, usually by one reporter. Videophones can be run off internal batteries or off another small power source, such as a cigarette lighter outlet in a car. They are also noiseless and inconspicuous, which are key advantages in this war. New versions are expected to improve on the jerky pictures.¹⁸ Still, with some more conventional technology, CNN was able to get a 1-ton satellite uplink facility operational inside a rebel-controlled area of northern Afghanistan, which required transporting about 20 cases of gear from Moscow to Tajikistan by plane and then to a rebel base by helicopter and truck.¹⁹

Clearly, managing the audience's expectations will be a challenge for CNN. Viewers tend to forget that the celebrated pictures of bombs falling on Baghdad in the Persian Gulf War, which put CNN on the map, weren't on air until 24 hours after the war started, and the first days' reports were radio or live accounts from reporters on the phone.²⁰

In addition to its news gathering technology, CNN is a leader in news dissemination technology. CNN's web and wireless sites have become even more important as more people logged on in the hours and days following the terrorist attacks to receive updated reports. After news of the crisis hit, officials at CNN.com rushed to triple its computer capacity and streamline its web pages to make them smaller. Mitch Gelman, CNN.com's executive producer, said that within 10 minutes they were unable to serve the entire volume of requests. On a normal day, they service 6 million visitors. The site saw 9 million page views an hour that day. The Internet community as a whole rushed to fill the void and offer assistance. For instance, a company in Italy and several businesses in the U.S. put their excess Internet capacity at CNN's disposal.²¹

▪ **Global Strategy**

CNN has always been a global company, deploying staff and being seen around the world. In fact, CNN sees itself as "a global network that just happens to be based in Atlanta – not a US network that is broadcast internationally. This distinction is at the very core of what CNN is all about."²² It is clear, however, that the staff in the U.S. has the best handle on what is happening in offices around the world. For example, according to some ad sales executives at CNN, the U.S. sales staff knows what inventory is available for bundling worldwide, while the European offices in London are only selling inventory for Europe. It remains to be seen whether these kinds of operations will be impacted in the long term by the events of September 11. It is clear that the U.S. has become a more global culture now – with more recognition and understanding about what is happening in other parts of the world. Therefore, CNN may need to become even more global in nature to address these new needs. And it may become an economic necessity for CNN to sell ad inventory worldwide in order to sustain higher production costs.

▪ **Innovation Strategy**

What is next for CNN? No one is certain how long the interest in the terrorist attacks and the war will last. What happens when this is over? If history is a guide, interest in wars tends to wane after the first few months. Will CNN then turn back to its tactics of competing with other cable news networks for ratings? Or will new technologies such as wireless delivery come to the forefront to help make CNN a more profitable company to operate? These questions deserve further exploration in the future.

4. CISCO

Overview of the Company

San Jose-based Cisco, founded in 1984 by a member of the Computer Science Department and staffer at the Business School at Stanford University, provides Internet Protocol-based (IP) networking solutions worldwide. Cisco is the leading maker of routers, and other networking and telecommunications system and equipment. Currently, Cisco is focusing on such "tornado" markets as core routing and L3 switching, content delivery networks, optical, voice over IP, wireless LANs and storage. Its 2001 revenues (fiscal year ending July 28, 2001) of \$22.3 billion were up 18% from prior year revenues of \$18.9 billion. During the first half of FY2001, the company looked on track to produce record revenues, with year-over-year revenue growth of more than 60%. But the general weakening of the U.S. economy, and in particular the telecom bust, hit Cisco hard. The company experienced a net loss of \$1 billion in FY 2001 (EBITDA was \$3.1 billion, down 21% from prior year EBITDA of \$3.9 billion), as compared to net income of \$2.7 billion in FY 2000.

Cisco sells its products in 115 countries primarily through the Internet, but also through a direct sales force, distributors, VARs and system integrators. It has 430 sales and support offices in 60 countries, with major operations in San Jose, California, Research Triangle Park, North Carolina, Stockley Park, UK, and Chelmsford, Massachusetts. Consistently ranked at the top of such lists as Fortune Magazine's "America's Most Admired Companies" and "Best Companies to Work For" and the Financial Times' "World's Most Respected Companies," Cisco employs more than 37,500 people worldwide, with approximately 14,800 residing in the San Francisco Bay area.

CEO John Chambers frequently articulates Cisco's culture of forward-thinking innovation, such as in his keynote speech at Comdex 2001. Chambers spoke about the necessity in today's volatile economic climate for companies to use network-enabled business and technology solutions to drive value creation, productivity and profitability through the creation of networked virtual organizations that leverage the communications power of the Internet. This concept, echoed by companies across diverse industries, is also a prevalent theme in the lessons learned following the attacks of September 11.

Initial Impact of September 11

On the morning of September 11, 2001, before sunrise in California, the terrorist attacks on the World Trade Center in New York City and on the Pentagon in Washington, DC, both a continent and three time zones away from Cisco's corporate headquarters in California, would profoundly test, shape and influence Cisco's decision-making structure and relationship with customers. The attack and Cisco's response would turn out to be huge calibration point for Cisco's way of relating to the market, managing its supply chain and communicating with its employees, suppliers and customers.

On September 11, Cisco responded with startling speed to the attack on the World Trade Center. Within 90 minutes after the attack, the firm had ascertained the position

and condition of every affected Cisco employee. (2 direct Cisco people and 13 indirect contracted or partner people perished in the attack.) By 12 noon Cisco had established e-mail contact with all people responsible for customers in the two towers. Still, Cisco NYC offices at One Penn Plaza were evacuated by 12 Noon, except for one or two managers. But throughout the day, Cisco remained in close contact with San Jose.

Cisco quickly established lines of contact and information with three key groups: its directly affected management and other employees; its affected customers; and other Cisco employees. The firm created dedicated conference lines, which were open 24 hours per day.

One of the key actions taken by Cisco was the establishment of an emergency command center in Edison, New Jersey. This location, headed by Patrick Finn of the New York City Cisco Office, operated in close coordination with a parallel emergency command center established in San Jose, headed by David Goddard. The Edison, NJ center ultimately comprised about 35 people, including managers, sales people, and support staff. Cisco then charted an overall plan dealing with serving key customers, providing IT, logistics and manufacturing support and allocating people as the need warranted. After a week and half the Edison-NJ command center closed as Cisco moved back to NYC offices.

A major part of Cisco's operations in the immediate post-September 11 period involved a close working relationship with the NYC Mayor's office and the overall emergency operations centers organized by the City. The Cisco point person for this activity was Mark Myers. As a result of the attack, all the central office circuit-switching phones in the Mayor's office had shut down due to the destruction of Verizon's West Street facility. The Mayor's Office had no dialtone. But fortunately that Office had been conducting, with Cisco's help, a small Voice Over IP [VOIP] experiment and the IP telephony equipment worked fine throughout the crisis. In addition, the City's emergency command center changed locations three times. It was first located at 7 Wall Street. Then it moved to the NY Police Academy and Cisco dispatched people and equipment so that for two days this facility had sufficient networking capability. Finally, on Thursday, the command center was moved to the Piers on the West Side in the 50s. Cisco joined others in quickly parachuting into this facility a complete voice and data networking system. Ultimately, within a very short period of time this huge work space was fully equipped with telecommunications, furniture, computer equipment, a cafeteria, etc.

A major challenge for Cisco was anticipating customer needs and supplying customers with product. Dealing with this situation involved a complicated set of considerations and actions concerning distribution, logistics, partner coordination, manufacturing and maintaining long-term customer relationships. This related series of actions went through three quick, successive phases. The first phase took place immediately after the September 11 attack when Cisco was concerned with supplying customers in dire need, like the City's emergency command centers. Cisco soon found that its own pipeline of products was being depleted fast since, among other things, Cisco's logistics-manufacturing strategy involved considerable outsourcing and just-time [JIT] manufacturing. In the meantime, Cisco sales people were in constant contact with customers and reported to the firm customer needs as they arose. Cisco in these early days of the crisis had to establish priorities for delivery and that was done by the sales people in coordination with the Edison, NJ and San Jose emergency command centers. The second phase, coming a few days after September 11, concerned the more explicit

use of partners and distributors. With Cisco's own stock being depleted at an enormous rate, Cisco made the decision to point its customers toward distributors and other, to use Cisco terminology, "eco-partners" to supply needed equipment. In NYC these firms included Tribeca Systems, Verizon and others. The third phase, which in some ways is an extreme extension of the second phase, in facing the emptying of Cisco depots, consisted of coordinating very closely in an unprecedented fashion with two large distributors Tech Data and Ingram Micro. In effect, distribution was temporarily outsourced, especially to large warehouses, such as the two large Ingram warehouses in New Jersey and Philadelphia. This extreme use and dependence on the Cisco partner network proved its worth during the crisis. Cisco in the end never lost its point of contact with customers, was able in the end to return to more "normal" logistical relationships and yet was able to supply customers with their key needs during a time of extreme stress.

Observations

A robust relevant heritage can be critical. Cisco was able to tap into an ongoing structure that was already networked based. Its employees are highly mobile and able to operate from diverse and remote locations. As one Cisco person stated at an ITE conference in March, 2000 in Taiwan, "My laptop is usually my office."

This *network structure* provided Cisco with a number of important attributes that were valuable in responding to September 11. One such trait is *agility*. Cisco was able to reconfigure itself, adapting to the changing needs of the unfolding situation. Examples include the equipping of successive locations of the City's emergency command centers, the changing strategies for supplying customers with equipment using its own depots, partners and distributors, and the evolving and successful logistics/manufacturing strategy. Another beneficial aspect of the network-like structure was that *leadership was distributed*, and indeed major instances of leadership were often carried out by those often closest to the ground. Even though the Cisco CEO, John Chambers, and other top managers were in Hawaii at a major sales meeting and thus unable to return to the Mainland, key decision making at Cisco ran smoothly from almost the very beginning of the crisis as responsibility was assumed by diverse range of top managers in NYC, New Jersey and San Jose. (Chambers was in close contact with all key people at Cisco, including via a conference call on September 12. By Thursday, Chambers held a major videoconference with Cisco people.) Finally, the network-like structure also enabled the firm to *respond quickly as well as in a flexible manner*.

Cisco has always been customer-driven. As one Cisco manager stated, "The single biggest motivation in Cisco is to be driven by customer success." In essence, this means that the sales force at Cisco often comprise the key decision makers at the firm. They often call the shots. Sales people are encouraged to know their customers well and anticipate their needs, often even before customers themselves can articulate such needs. This extreme customer focus meant after September 11 that Cisco could relatively easily align its activities to urgent demands of a diverse array of customers and indeed the firm emerged somewhat ahead of customers in thinking through network requirements in the immediate and medium term post-September 11 period.

Learning from past experience is important. Cisco had already experienced crises, though clearly not of the magnitude of September 11. Being headquartered in an

earthquake zone, Cisco had undergone natural disasters and had an emergency preparedness plan ready. Part of this readiness was due to its previous effort to be prepared for any crisis caused by Y2K, thought fortunately such an emergency never materialized.

Indeed an overall commitment to learning from the past and from the present seems to be important in responding to surprises and crises. Throughout this event, a watchword at was "What did we learn yesterday?" Cisco already had an often-stated commitment to e-learning and this commitment has long been an important part of its strategy to remain competitive. Therefore, part of Cisco's culture was the explicit theme: "Let's be great learning things."

After the crisis was over, Cisco conducted a series of reviews on what it had learned so that its responses to future crises could be improved. Since September 11, Cisco has built a permanent major emergency command center in California.

Another key lesson from the Cisco experience is that firms need to be ready to understand how *such events can reshape markets*, leading to the need to alter a firm's portfolio of products and services. In Cisco's case, new product lines and some existing product lines emerged with a higher importance in the Post-September 11 world, such as security products, IP telephony and storage. The relatively strong performance of IP telephony demonstrated to Cisco that established firms were now more likely to view that technology in favorable light. Therefore, *out of crises come new opportunities to serve customers*.

5. CONCLUDING THOUGHTS

Obviously, we cannot yet fully understand the long-term impact-in terms of management practices, structure and innovation-on corporations that have resulted from the September 11 experience. However, it is crucial to begin by exploring emerging trends and to learn from them.

As a result of examining three representative companies, some short and long term trends can be discerned. From an organizational perspective, it appears as if there is often a "back to basics" model in effect in some companies, which are focusing on one or two core competencies and pulling away from much of the innovation and experimentation that took place in the 90's. On the other hand, the resilience of a network-like structure is also clearly in evidence. Along with top-down decision making, there is paradoxically a strong trend toward decentralization and dispersion occurring. In addition, rather than centrally concentrating an organization, members of organizations will be working remotely more often. They will also be using existing and new technologies to communicate with one another. If a company is to thrive and remain competitive, this newly configured organization will require that managers be more tolerant and agile.

While innovation seems dormant in many companies, innovation clearly continues. Disruptive technologies will again challenge the core competencies of companies. For example, it is possible that the attack on the World Trade Center may act as a catalyst to ignite the long-anticipated broadband explosion. Prior to September 11, the dot.com and telecom sectors were primarily focused on driving broadband infrastructure and applications into the home. In the Post-September-11 world, firms may become a major

force in effecting major changes in the telecommunications infrastructure both within and between corporate entities.

This working paper is simply intended to be a starting point for further discussion on the challenges facing managers in the newly configured post-September 11 world.

Exhibit 1

CNN Fact Sheet

Broadcast Properties

CNN

CNN/U.S., the world's leading 24-hour global news and information television network and the flagship of the CNN News Group, pioneered 24-hour television news when it launched on June 1, 1980. CNN/U.S. provides its audience with in-depth, live coverage and analysis of breaking news events. CNN/U.S. also offers a full range of programs covering the latest in business, weather, sports, entertainment, health and science news, as well as topical, in-depth interviews.

CNN Headline News

CNN Headline News, cable television's most successful brand extension, updates more than 76 million households on today's news constantly, 24 hours each day. CNN Headline News provides the top stories about health, technology, weather, entertainment, the environment, sports, travel and money as well as breaking or "just in" news. The network is broadcast from a state-of-art "in the round" studio at CNN's world headquarters in Atlanta and is designed especially for viewers who want relevant and comprehensive news in a way that suits the urgency of their schedules. Teams of at least four anchors interact to deliver fast-paced, lively and engaging news, using the best resources of the CNN News Group.

CNN International

CNN International (CNNI) is the world's only global, 24-hour news network. CNNI can be seen in more than 151 million television households in 212 countries and territories worldwide through a network of 23 satellites. In September 1997, CNNI launched a regionalization strategy that has led to 5 separately scheduled channels to date: CNN International Europe/Middle East/Africa, CNN International Asia Pacific, CNN International South Asia, CNN International Latin America and CNN International USA.

CNNmoney

CNNmoney, the financial network, delivers comprehensive business news 24 hours each weekday. By utilizing the unmatched resources of the CNN News Group, including its 42 bureaus and almost 900 broadcast affiliates worldwide, CNNmoney provides up-to-the minute business news coverage from Wall Street and throughout the world. CNNmoney offers viewers a broad range of business, financial and consumer news, giving small investors and professionals alike financial news that goes beyond the numbers to deliver informative and credible analysis.

CNN/Sports Illustrated

CNN/*Sports Illustrated*, a joint venture of CNN and *Sports Illustrated*, is a 24-hour sports network offering complete coverage of the world of sports, with in-depth reporting and live coverage of breaking news and press conferences. The network combines the unmatched newsgathering resources of CNN with expert analysis and unique commentary from *Sports Illustrated's* stable of writers, editors and reporters. This unique combination allows CNN/*Sports Illustrated* to offer unmatched journalism, analysis and commentary.

CNN en Español

The 1997 debut of CNN en Español represented the most successful launch in the history of Latin American pay television. The network delivers international and regional news produced, written and presented by Latin Americans for Latin Americans in Spanish. CNN en Español currently reaches more than 10 million households in Latin America and a growing population in the U.S. CNN en Español's Mexico feed features a Mexico-specific newscast and the *Infocinta* CNN ticker, continually updated with news headlines, stock and financial data, sports scores and local time and weather information.

CNN Airport Network

CNN Airport Network, a subsidiary of Turner Private Networks, Inc., is the only live, satellite-delivered television service broadcast to waiting air travelers across the United States. CNN Airport Network can be seen in more than 1,600 gates and other viewing areas in 35 major U.S. airports, representing more than 400 million passenger enplanements annually. CNN Airport Network delivers national and international news, live breaking events, entertainment, weather, sports, business and lifestyle features. CNN Airport Network International can also be seen in more than 80 viewing areas at Amsterdam's Schiphol Airport. CNN Airport Network's Web site provides weather updates, flight tracking and city guides, as well as other useful travel information.

CNNRadio

CNNRadio is a full-service network, providing its more than 1,900 worldwide affiliates with the latest information in news, sports and business. Utilizing CNN's 42 bureaus worldwide, CNNRadio offers an unmatched menu of audio clips and reports in closed-circuit feeds. CNNRadio is based in CNN's world headquarters in Atlanta with personnel, including radio-only correspondents, located at the CNN bureaus in Washington, D.C., Los Angeles and New York. CNNRadio programming is distributed exclusively for radio broadcast in the United States by Westwood One and has received the 1999 Radio Television News Directors Association's (RTNDA) highest award, the Edward R. Murrow Award for Overall Excellence in Network Radio, and the Murrow Award for Best News Series.

CNNRadio Noticias

CNNRadio Noticias provides radio affiliates in the United States and throughout Latin America with the latest news, sports, business and entertainment news in Spanish. CNNRadio Noticias airs live hourly newscasts and Internet-delivered news resources via the exclusive "A La Carta" Web site, produced using the worldwide resources of CNN en Español and the CNN News Group.

CNN Newsource

CNN Newsource is the world's most extensively syndicated news service, comprised of more than 650 network affiliates and independent television stations throughout North America. In addition to live correspondent reports from the scene of breaking news stories, CNN Newsource affiliates receive 17 news feeds each weekday and 12 news feeds each weekend day of local, national and international news, weather, sports, medical, business, lifestyle and entertainment stories, along with graphics and special franchise pieces to enhance their local news programs. CNN Newsource's more than 200 international affiliates receive three news and feature feeds each day.

CNN+

CNN+ is the first CNN-branded local language news channel operated and controlled outside of Atlanta. The 24-hour Spanish-language news channel is based in Madrid and is produced by Compania Independiente de Noticias de Television (CINTV), a company held 50% by Turner Broadcasting International and 50% by Sogecable, owner of Canal Plus España and Canal Satélite Digital (CSD).

CNN Turk

CNN Turk is the second CNN-branded, local-language news service operated and controlled outside of Atlanta. CNN Turk is a joint venture owned by Turner Broadcasting International and Turkey's Dogan Media Group.

n-tv

Based in Berlin, n-tv is Germany's only national news and business channel. Time Warner has a 49.79% equity stake in n-tv; Handelsblatt and Nixdorf are the other principal shareholders.

The CNN Web sites

CNN is responsible for the award-winning news site CNN.com, as well as three other U.S.-based Web sites and the distribution of CNN news content via platforms such as mobile phones. In addition to CNN.com, the U.S.-based sites include CNNfn.com, the financial news Web companion to CNNfn; CNNfyi.com, an educational site for students and teachers; and CNNSI.com, the sports news Web companion to CNNSI. The collective CNN sites include eight international sites and are among the world's leading news and information destinations. The CNN sites rank No. 1 in Gross Usage Minutes among all online news sites. CNN's Web sites are updated continuously from production centers worldwide.

The eight international sites are: CNN.com.br, the Portuguese-language news and information site serving Brazil and Latin America; CNN.co.jp, CNN's Japanese-language news and information site serving Japan; CNN.de, CNN's German-language news and information site serving Germany; CNN.dk, CNN's Danish-language news and information site serving Denmark; CNNenEspanol.com, CNN's Spanish-language news and information site serving Latin America; CNNItalia.it, CNN's Italian-language news and information site serving Italy; CNN.com Europe, CNN's English-language news and information site reporting news that impacts Europe; and CNN.com Asia, CNN's English-language news and information site reporting news that impacts Asia.

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