

OCEAN'S DILEMMA

On the morning of January 12, 2012, Ross Bean, president and CEO of Ocean Technologies (OT), was reading his e-mails. After its strong financial performance in 2011, with revenue of \$200 million and net income of \$52 million, the company had plans to expand aggressively in 2012. Bean was excited about the expansion but worried that it could be delayed if four critical product issues were not handled immediately. Bean looked carefully at the four issues and drafted a memo on each issue to its respective product manager. He hoped for a resolution during the product managers' meeting the following week.

Cloud Computing

OT was a technology company headquartered in Menlo Park, California. Founded in 2008, the company was one of the fastest-growing in *cloud computing*, the use of shared, on-demand storage capacity by computers and other electronic systems such as smartphones and tablets. Because of the cost effectiveness of its infrastructure, the reliability of its data storage, and the ease with which it allowed data to be shared, cloud computing was in high demand among IT services.

OT was one of the first companies to provide an easy and secure way to store customer data on online servers. It offered a suite of products to customers. Its two flagship products—CloudDrive and FlexiCom—had experienced tremendous success in the market. As the market for cloud computing continued to grow, the company expanded its target customer base from individuals to small and large businesses.

Its Flagship Products

CloudDrive was an online storage solution. Customers could store any data (e.g., photographs, personal documents, songs, movies) on the firm's remote servers. To attract customers, the company offered 5GB of free storage and provided competitive upgrade options to

increase storage space. It was one of the safest storage solutions on the market because the data was safeguarded by OT's patented encryption technology.

FlexiCom offered a web interface that allowed companies and individuals to rent computing resources such as servers, web servers, storage, and database storage.

Addressing Recent Product Issues

On January 5, the product manager for OT's tablet division in Thailand sent an e-mail to Bean regarding a disruption in the supply of flash drives for the company's new handheld tablet device, called Expedite. Needless to say, the decision about how to handle this issue (**Exhibit 1**) would significantly affect the company's profitability.

On January 11, Bean received an update from the marketing department regarding a competitive threat to its new product, E-Sales, a cloud-based customer relationship management (CRM) technology. He asked his senior product manager for E-Sales to reconsider the product launch (**Exhibit 2**).

Even before Bean learned of these two issues, Bean had received notice from the compliance and information security department regarding a customer lawsuit. A customer whose data was stolen from OT's servers was suing OT for significant damages. To add to these legal concerns, the legal department reminded Bean that a patent lawsuit filed one year ago by a major competitor would soon be decided. Luckily, Bean had identified ways to insure OT against losses from these lawsuits (**Exhibits 3 and 4**).

Before leaving the office, Bean e-mailed the four memos to his product managers. As always, he expected his managers to support their recommendations with analysis.¹

¹ The company analyzed projects on the basis of expected discounted cash flows, using a 10% discount rate.

Exhibit 1

OCEAN'S DILEMMA

Memo 1

TO: Product Manager, Expedite
FROM: Ross Bean
DATE: January 12
RE: Expedite product launch and unexpected flooding in Thailand

As you are aware, recent floods in Thailand have disrupted our supplier's production of flash drives. These flash drives are a key component in our new Expedite tablet device, which we expect to launch next month. Another supplier has approached us with an offer to produce similar flash drives. If we go ahead with the new supplier, we should be able to launch our product on time, but with higher initial investments. Alternatively, if we wait for our regular supplier, the launch will be delayed by three months. Such a delay could affect our ability to capture a large share of the market. From my perspective, the choice comes down to two options. At our meeting next week, I look forward to hearing which option you recommend.

Option A: Go with the new supplier and launch Expedite on time. With this option, we face an investment of \$4 million now, followed by an investment of \$3 million in each of the next two years. We will begin selling the product in year 1. Each device has a profit margin of \$200. With an on-time launch, we will certainly capture a large share of the market. We will sell 10,000 units each in years 1 to 5, followed by 5,000 units each in years 6 to 8. Finally, we should recover some of our initial investment by selling our plant in year 9 for \$2.5 million. The net present value (NPV) of this option is \$979,345.

Option B: Wait for our regular supplier and delay the launch of Expedite. The investment under this option will be \$3.2 million now, followed by \$3 million in each of the next two years. In delaying the launch, however, we risk losing most of the market to our competitor. The marketing department believes there is a 5% chance of losing the market and selling only enough to break even on our initial investment. With 95% probability, we will capture the same share as in option A. In year 9, we will recoup \$1 million of our initial investment. If we capture a large share of the market, the NPV of this option will be \$1,143,199; otherwise, it will be \$0.

Exhibit 2

OCEAN'S DILEMMA

Memo 2

TO: Product Manager, E-Sales
FROM: Ross Bean
DATE: January 12
RE: E-Sales product launch

As you know, we have received an update from the marketing department regarding a competitor's product. Based on reports from industry research agencies Nielsen and Gartner, the competitor's product is likely to make a huge impact on the CRM market. Consequently, we may want to reconsider our decision to launch our E-Sales product. Below are the two options we might pursue. At our meeting next week, I look forward to hearing which option you recommend.

Option A: Proceed with the launch of E-Sales. Under this option, initial marketing expenditures will be \$400,000. If E-Sales succeeds in the market, it will generate profits for five years. In year 1, the profit will be \$300,000. Profits will be \$500,000 in each of years 2 through 4. And we will have profits of \$400,000 in year 5. The NPV of success in the market is \$1,251,483. The chances of achieving success, however, are only 5%. If we fail, we will barely sell enough to break even (in terms of NPV) on our initial investment.

Option B: Do not launch E-Sales. With this option, we can use the infrastructure we reserved for E-Sales for our existing product, FlexiCom. The additional infrastructure will help us generate more sales of FlexiCom in the next five years. From these additional sales, we will be able to generate profit of \$20,000 now, followed by profit of \$20,000 in year 1, \$18,000 in year 2, \$10,000 in year 3, and \$5,000 each in years 4 and 5. The NPV of this option is \$67,091.

Exhibit 3

OCEAN'S DILEMMA

Memo 3

TO: Product Manager, CloudDrive
FROM: Ross Bean
DATE: January 12
RE: Data breach in CloudDrive

As you know, we recently experienced a serious attack from a computer virus. In the attack, one of our customers lost a large amount of data. This customer has since filed a lawsuit against us seeking \$1,220,000 in damages. In talking with our engineers, we know there is some chance that the customer's data will be recovered in the coming months. As of now, though, we have the following two options. At our meeting next week, I look forward to hearing which option you recommend.

Option A: Buy litigation insurance. An insurance agency has approached us with an offer to cover our damages. The cost of the policy is \$920,000, payable immediately. Under the policy, if the court rules against us, the agency agrees to pay the damages.

Option B: Do not buy the insurance. Without the policy, if the court rules against us, we will be ordered to pay damages according to the following nine-year schedule: \$650,000 now, followed by \$80,000 in each of years 1 through 4 and \$50,000 in each of years 5 through 9. The NPV of this schedule is $-\$1,033,047$. If we do not recover the data, we are certain to lose the case. But if our engineers are able to recover the data, our customer has agreed to withdraw the complaint at no cost to us. Our engineers believe there is a 5% chance that they will recover the data.

Exhibit 4

OCEAN'S DILEMMA

Memo 4

TO: Product Manager, FlexiCom
FROM: Ross Bean
DATE: January 12
RE: Patent infringement decision and FlexiCom

As you know, we expect to hear a decision soon on the patent infringement case filed against us by DryCloud Technologies one year ago. We are confident that the technologies we use in FlexiCom do not infringe on DryCloud's patent. According to our legal experts, there is only a 5% chance that the court will rule against us. Nonetheless, I would like you to consider the following two options. At our meeting next week, I look forward to hearing which option you recommend.

Option A: Buy litigation insurance. An insurance agency has approached us with an offer to cover our damages. The cost of the policy is \$75,000, payable immediately. Under the policy, if the court rules against us, the agency agrees to pay the damages.

Option B: Do not buy the insurance. Without the policy, if the court rules against us, we will be ordered to pay immediate damages of \$800,000 to DryCloud. In addition to this lump sum, we will be required to pay royalties to DryCloud for the next four years until the patent expires. Based on their sales, we will need to pay \$240,000 in year 1, followed by three installments of \$140,000 in each of years 2 through 4. The NPV of the immediate damages and royalties is $-\$1,334,690$.