## List1. The Course of this Case

August 20, 1999	Dai-Ichi Kangyo Bank, Fuji Bank and Industrial Bank of Japan announced a wide-ranging alliance to create the world's largest bank through a joint holding company.
December, 1999	The banks agreed on the plan to integrate the entire Mizuho Bank system, which primarily serves individuals and small and medium-sized companies, on the existing Dai-ichi Kangyo Bank system in April 2002.
September 29,2000	Mizuho Holding Inc. was established as the holding company of Mizuho Financial group, to become the integrated body of Dai-Ichi Kangyo Bank, Fuji Bank and Industrial Bank of Japan.
December, 2000	The banks reviewed their original plan of banking system integration and agreed on postponing it until April 2003 and interfacing the three banks' systems. The interface scheme would take the Dai-ichi Kangyo Bank system as the primary banking system, and a relay system for bridging the primary system and the two banking systems of Fuji Bank and Industrial Bank of Japan. However, the program added to handle logical connection between the primary system and the relay systems had a bug that would cause a specific problem in certain circumstances. The bug was undetected during the connection and load tests conducted prior to the banking operation on April 1.
May 10, 2001	The relay system plan was adopted unanimously by the Mizuho Holdings board .The Financial Services Agency (FSA) evaluated the integration scheme of the Mizuho Financial Group's new banks from March through June 2001. It expressed concern about the delay in preparation for the scheduled integration and reminded the company of the issues of its integration scheme.
December, 2001	The banks agreed that among the Mizuho Corporate Bank branches, the ones running the Dai-ichi Kangyo Bank system would process data of more than 50,000 accounts including large corporations and financial institutions, instead of the ones running the Industrial Bank of Japan's system. The original plan specified the Bank of Japan's system to process the data; however, it was later found that the system was not well suited for mass data processing. The banks notified their corporate customers of the changes in the bank and the branch codes effective on April 1, and requested appropriate changes to be made to their scheduled transactions as well as to the transactions data in the Japanese Bankers Association format. Fuji Bank and Industrial Bank of Japan would take the bank code of Dai-ichi Kangyo Bank, and some branch codes would change on April 1, 2002.
Early March 2002	The engineers tested the integrated banking system for debit transactions. On March 22, the Mizuho Holding management committee received from the banking system division the status report saying that preparation for the new banking system was coming along almost as scheduled. It decided to go ahead with the scheduled integration of banking systems. The engineers did not thoroughly test the new system for its overall processing load in a large-scale operation with various transaction requests, including requests of invalid debit transactions, because there was not enough time to conduct such an exhaustive test.

March 30,2002	The banks started processing account data., two days before the first day of the new banks in business. The batch processes for allocating data to the three banking systems were interrupted by mismatches of bank and branch codes because of account data containing both the old and new codes. A programming bug also caused errors during processing debit transaction data in non-FSA formats. Although the program was manually debugged, processing was delayed, resulting in more than 50,000 unprocessed account and transaction data. The bank group went ahead with the scheduled system integration, assuming that the delay in data processing would not affect on the new banks' operations as long as all would be completed processing by the end of April 1.
April 1, 2002	The three banks were officially and legally combined into two companies, Mizuho Bank and Mizuho Corporate Bank. ATM transaction errors started to occur at the Mizuho Bank branches. The ATMs at branches formerly operated by Fuji Bank only accepted the ATM cards provided by the former Fuji Bank. While customers had no problem with the former Fuji Bank ATM cards at branches formerly operated by Fuji Bank, ATMs at other new Mizuho Bank branches dispensed no cash although debits were made from the accounts. Mizuho Bank disconnected the relay systems from the primary banking system. It found the cause of the ATM transaction errors at around 13:00. While operators manually corrected the transaction and money remittance errors, more than 100,000 automatic debits were backlogged. This inadvisable manual correction resulted in another issue, loss of account data, to arise. The bank later discovered that the confidential data of account holders were accidentally disposed of.
April 2,2002	The ATM systems were restored.
April 4, 2002	The bank reported publicly the delay in automatic debits.
April 5, 2002	The bank reported 2.5 million delayed debits since April 1. More than 30,000 double debits were found.
April 8, 2002	An additional 30,000 double debits were found (restored by April 9).
April 9, 2002	The backlog of automated debits was reduced to 150,000. The president of Mizuho Holdings had a press conference after he testified in a congressional hearing that the bank would be able to normalize operations in April.
April 11, 2002	Additional delayed debits were found, resulting in a backlog increase to 400,000.
April 18, 2002	The backlog of automated debits was cleared except for a substantial delay in forwarding of credit advices.
April 30, 2002	Month-end 12 million automatic debits were processed normally as scheduled.
May 8, 2002	FSA and the Bank of Japan decided to conduct an emergency inspection.
May 21, 2002	FSA dispatched the financial regulator to inspect Mizuho Bank on-site. The president of Mizuho Holdings said at a press conference that the bank was expecting a loss of 1.8 billion yen attributed to the banking system failure.