National Australia Bank's Customers Down for Days
December 2010

In late November of 2010, a "corrupted" file brought down the bulk of services provided by the National Australia Bank. Two weeks later, the bank was still working to recover some customer accounts. Though the bank has declined to describe what went wrong, there is ample evidence that it was, in part, a human error.

The National Australia Bank

Founded in 1893 as the National Bank of Australasia, the bank became the National Australia Bank (NAB) in 1981 following its merger with the Commercial Banking Company of Sydney. NAB (www.nab.com.au) is now one of the largest banks in Australia. It is ranked the 17th largest bank in the world based on market capitalization. Headquartered in Melbourne, Victoria, Australia, the bank operates 1,800 branches and 3,000 ATMs serving 11 million customers in ten countries, including Australia, New Zealand, the U.S., the U.K., and Asia.

In addition to its retail, corporate, and other banking services, NAB clears payments for many other banks in Australia, including the Commonwealth Bank, Westpac, ANZ, HSBC, Citibank, and Bank of Queensland. For instance, NAB processes direct entry and over-the-counter deposits for Citibank. It processes interbank transfers, payroll payments, direct debits, check payments, and deposits for HSBC.

To perform this responsibility, NAB conducts nightly batch runs on behalf of its partner banks. A transaction history file showing all payment activity for each bank is generated and sent to that bank by the end of day.

The Data-Processing Breakdown

Early on the morning of Wednesday, November 24th, NAB's partner banks went on high alert when they did not receive their transaction files. Without these files, the banks could not reconcile their customer accounts.

This was rated a Severity 1 problem, which is an industry standard indicating that the fault had high customer impact.

The Impact

Many major banks in Australia were impacted by the problem. They had no record of the previous day's transactions that affected their customer accounts.

Payroll deposits could not be made. Credit-card payments were frozen. Direct debits for bill paying went into limbo. Interbank payments ceased. The NAB ATMs were down, as were its online banking services. Retailer point-of-sale terminals managed by NAB were useless.

Millions of NAB's customers and an untold number of other customers were affected. Customer accounts were frozen and inaccessible. Customers faced the prospect of a weekend without access to their money.

If a worker's employer banked with NAB, his employees' salaries could not be deposited into their accounts, no matter which bank they used. They could not pay their rents or buy food. Automatic bill payments ceased, and customers faced late fees or even disconnection from services because funds were not available for regular payments.

Even more critical was that the Centrelink welfare payments could not be made to the neediest families in the country.

This problem did not last for hours. It lasted for days. By the weekend, NAB reported that most of its customer accounts had been reconciled but that almost 20,000 accounts still had instances of duplicate and multiple transaction entries. Thousands more customers still did not have an accurate record of their transactions. Moreover, a week later, NAB announced that it still did not have all of its problems resolved. Problems carried over to the next weekend, almost two weeks after the incident.

The NAB Response

NAB opened up its branches during the first weekend to help out its customers. It provided free overdraft privileges so that customers could get some money. It said that it would compensate its customers for any fees that they incurred from other banks, such as late fees or interest that resulted from the incident.

Other banks cooperated. They agreed to waive fees that resulted from the NAB fault. They also offered temporary overdrafts with no fees or interest to their customers who were affected by the NAB outage. Payment dates for loans were relaxed, and no penalty fees were imposed for overdue mortgage payments or overdrawn accounts.

NAB paid thousands of dollars to place a full-page apology from CEO Cameron Clyne in all major newspapers. In part, the apology read:

> "On behalf of everyone at NAB, I would like to offer our sincerest apologies and thanks to our customers for your ongoing patience and understanding as we work hard to fix the delays we have experienced in processing some payments and transactions. I know that the delays have caused inconvenience and in some cases distress to many people."

Finally, on Sunday, November 28th, NAB announced that other banks were now in a position to process any salary deposits or other payments that might have been impacted by the processing delay. However, individual account problems lingered for another week.

The Probable Cause

NAB has yet to explain exactly what happened. Its only official comment, released by NAB's official spokesperson, George Wright, was that the problem was not a human error. It was a "corrupted file" that caused the problem.

However, the publication *The Australian* indicated that it had information to the contrary. It reported that someone from NAB's IT department inadvertently uploaded an erroneous file that

"corrupted" the system. The conjecture is that the file contained the instructions for managing the batch-processing cycle. It inadvertently caused many transactions to be duplicated. Mr. Wright described this conjecture as a "fair statement."

Furthermore, NAB did not comment on why its management processes had failed to detect the error or to rectify the problem before it got out of hand.

Lessons Learned

While little information is forthcoming on exactly what caused the problem, one lesson seems to be painfully clear. Why could the bank not roll back the erroneous changes made by the faulty batch run, correct the problem, and rerun the batch job. Did they not take backups? True, the reprocessing would probably have violated the batch window; but that would have been much better than experiencing, in effect, a two-week outage.

NAB has hired KPMG to conduct an investigation into its problems. In the meantime, more than 6,000 NAB customers have lodged compensation claims for refunds of bank fees, interest, and late payment charges.

An interesting aside is that the bank rejected in 2008 a recommendation to spend $100 million on backup procedures. In hindsight, that might have been money well spent.

Acknowledgements

We thank our subscriber, Paul Holenstein, for bringing this incident to our attention. The material in this article was taken from the following sources:

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Human error triggered NAB software corruption, *The Australian*; November 30, 2010.
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