


the **Availability Digest**

www.availabilitydigest.com
[@availabilitydig](https://twitter.com/availabilitydig)

Royal Bank of Scotland Suffers Multiple Outages

December 2013

For the third time in eighteen months, the Royal Bank of Scotland and its subsidiaries, NatWest and Ulster Bank, went offline. Millions of customers could not access cash via ATMs. They could not use their credit cards or debit cards. They could not access their accounts via the Web or via their mobile apps. Customers stood at petrol stations unable to pay for the fuel that they had just pumped and sat at restaurant tables unable to pay for their dinners. 

The outage occurred Monday afternoon, December 2, 2013, at 6:30 PM local time. This happened to be Cyber Monday just before Christmas, the busiest online shopping day of the year. Services were restored three hours later at 9:30 PM. The following Wednesday, December 4th, over 1,000 RBS and NatWest branches opened early to help customers resolve problems with their accounts.

The Royal Bank of Scotland (RBS)

Together with its subsidiary banks, NatWest and Ulster Bank, RBS provides banking facilities throughout the U.K. and Ireland. RBS has about 700 branches, mainly in Scotland. RBS' roots date well back into history – it was founded in 1727. It currently employs over 140,000 people. It has about 24 million customers in the U.K.

NatWest (the National Westminster Bank) was acquired by RBS in 2000. NatWest, with 1,600 branches, is the largest retail and commercial bank in the U.K.

Ulster Bank is a subsidiary of NatWest. It has over 230 branches spread throughout Ireland.

During the 2008 housing crash, RBS was bailed out by U.K. taxpayers. RBS is now 82% owned by the British government. It is undergoing a continuing investigation by the Financial Conduct Authority following a series of technology failures.

What Was the Cause of This Outage?

RBS was quick to state that their systems did not go down because of Cyber Monday volume, nor had they been attacked by hackers. No specific problem was communicated to the public.

However, Ross McEwan, the new CEO of RBS (for just a month at the time), blamed the outage on his predecessors. As a result of mergers and acquisitions, the RBS IT environment had become a patchwork of systems that was becoming more and more difficult to maintain. For years, RBS had made little investment in their IT systems, preferring instead to struggle with their aging infrastructure. This has led to a series of outages over the past several months.

In an effort to help customers during the outage, the bank tweeted a redirect link that customers could use to get service. However, this proved to be a boon for hackers, who used the opportunity to send out

phishing emails passing unsuspecting users to bogus web sites. These sites appeared to be real but were really designed to capture a customer's banking credentials. There were reports of monies that had been stolen from accounts. RBS urged customers not to click on links or open attachments in suspicious emails.

McEwan's goal now is to build IT systems that customers can rely upon. He has pledged to spend £700 million in the next three years to improve the bank's systems.

A History of RBS Outages

RBS has been plagued with a history of IT outages. In March of 2013, RBS, NatWest, and Ulster Bank mobile applications went down for six hours. Customers could not access their accounts via their mobile phone apps. Earlier in the year, ATMs and all online access were down.

The granddaddy of all outages hit RBS in June of 2012. It caused weeks of havoc. The outage was caused by an upgrade gone massively wrong.¹ Over the weekend of June 16th and 17th, the bank decided to upgrade its CA 7 batch facility to a new version. It found a problem with the new version and backed it out, returning to its current version. However, in the process, the IT staff accidentally deleted a key control file that prevented the overnight batch job from completing.

A problem arose when they could not determine how far the batch job had progressed. Even with the help of CA Technologies, it took until June 22nd to pinpoint the cause of failure and to resume the batch run. However, during this time, scheduled bills could not be paid, employers could not pay their employees, and pensioners could not get their pension payments. Interbank transfers could not be made, which spread the problem to other banks.

It took until July 2nd – over two weeks – to work through the backlog of transactions that had accumulated during the outage and to resolve all of the problems so that the systems could be returned to normal operations.

The outage cost the bank £175 million. This included compensation to customers for money lost and the cost of extended branch banking hours, expanded call centers, and working with credit-rating agencies to resolve erroneous credit degradations.

The bank has pledged a similar compensation program for the current outage.

Following in the Steps of the Australian Banks

The RBS series of failures due to an aging IT infrastructure mirrors what is going on in Australia.² The National Australian Bank, Westpac, the Commonwealth Bank, and the Australia and New Zealand Bank (ANZ) have all suffered multiple major outages over the past three years.

As with RBS, these outages have occurred because of outdated IT environments. The Australian banks are undergoing a massive upgrade of their systems. The Australian Prudential Regulation Authority has said that it will not accept outages due to institutions running outdated, unsupported operating systems, hardware, or applications. Nor will it stand for outages caused by running critical systems with single points of failure or by losing critical skills. It has warned about cutting IT budgets.

¹ Royal Bank of Scotland Offline for Two Weeks, *Availability Digest*, July 2012.

http://www.availabilitydigest.com/public_articles/0707/rbs.pdf

² Australia's Painful Banking Outages, *Availability Digest*, March 2012.

http://www.availabilitydigest.com/public_articles/0703/australian_bank_outages.pdf

Summary

RBS' chief executive, Ross McEwan, has said that British banking technology lags behind Australia. We wonder what other banking sectors may be facing this very same problem.

Within the RBS infrastructure, McEwan has committed to spend £700 million over the next three years to bring his systems up to date. However, it is reported that executive bonuses for this year will total about £500 million. That would be welcome money to solve RBS' availability problems.

Acknowledgements

We thank our subscriber, Terry Critchley, for pointing us to this story. In addition to citations in the article, information for this article was taken from the following sources:

RBS Outage Leaves Customers Cashless, *Business Insider*; December 2, 2013.

RBS chief blames lack of investment for IT systems failure, *Financial Times*; December 3, 2013.

Royal Bank of Scotland admits decades of IT neglect after systems crash, *NBC News*; December 3, 2013.

Royal Bank of Scotland and NatWest in 'Cyber Monday' Payment Cards Meltdown, *Huffington Post*; December 3, 2013.

RBS and NatWest Glitch: Branches Open Early, *Sky News*; December 4, 2013.

Second RBS Outage in a Week Paves the Way for Phishing Extravaganza, *Infosecurity Magazine*; December 8, 2013.

NatWest and RBS Cyber Monday card glitch: Bank faces millions of pounds of compensation claims after chief executive admits "decades" of underinvestment in IT systems, *The Independent*; December 16, 2013.