



Dear Adam Internet Customer,

As most of you are now aware, last week saw the most significant outages in Adam Internet's 20-year history. Throughout the years, and particularly in recent times, we have invested heavily in both staff and infrastructure to make certain that events like last week cannot occur. It was therefore very concerning to us that our valued customers experienced such prolonged outages and our business' reputation for excellence was tarnished. While some aspects of the outages remain unclear and under investigation, we can assure you we have the entire Adam Internet networking team currently working with Silk Telecoms (our backhaul provider) and Ericsson (our ADSL DSLAM vendor) to ensure this does not happen again.

Adam Internet management and staff would like to apologise to our loyal customers for this outage and to thank you for your patience and continued support as we work through this problem. Our commitment to customer service is unparalleled in our industry, and we accept that this outage, while not completely within our control, is not consistent with the level of service that our customers have come to expect from Adam Internet.

Below is a summary of the event that started at 4pm on Wednesday, 11 June 2008 and the steps taken by the Adam Internet and Silk Telecoms teams to resolve it:

- 4pm Wed: Huge traffic spikes appeared at a number of AdamDirect exchanges around the Adelaide metropolitan area. These spikes were detected by automated monitoring systems within Adam Internet's network and staff began investigations.
- 6:30pm Wed: The traffic spikes became more widespread across most AdamDirect exchanges where Silk Telecoms was used for backhaul.
- 9:10pm Wed: Silk Telecoms rebooted Adam Internet's hub equipment in an effort to rectify the problem, but the traffic storm in the Adam Internet network persisted.
- 12:30am Thurs: Silk Telecoms performed a soft reset on a card in the core network, which unfortunately did not rectify the problem.
- 1:40am Thurs: Silk shutdown the primary port for Adam Internet's services, forcing all traffic onto the secondary port, which is physically on a different card in the core switch. Traffic appeared to return to normal however 12 sites had become uncontactable. It was decided that teams of Adam Internet engineers would be deployed to physically drive to each site and manually power cycle to restore connectivity.



- 6am Thurs: It was believed that all services were restored.
- 9am Thurs: The 12 sites originally affected progressively became uncontactable again and Adam Internet network engineers were again deployed to all sites.
- 6pm Thurs: Through a troubleshooting process, a team of Adam Internet staff found a slight similarity between the particular Ericsson switches used at the 12 affected. In an effort to restore services, it was determined that Adam Internet network engineers would take 12 new switches from storage and replace the primary switch at the 12 affected sites.
- 7am Fri: Majority of services active again. Adam Internet worked with Silk Telecoms throughout the day to diagnose potential remaining issues at some sites.

As the problems experienced last week were exceptionally complex, we have sought to provide you with only the key milestone events of the outages. This does not do justice to the teams of people that constantly worked throughout the period of the outage, troubleshooting this highly unusual fault.

It is important to note that throughout the entire outage, all Telstra Wholesale customers and customers connected to the Flinders and Waymouth AdamDirect exchanges were not affected, as they were connected directly to Adam Internet via the company's own fibre around the CBD, and not using the Silk Telecoms Network. Flinders and Waymouth both have the same Ericsson switches deployed as all other AdamDirect sites.

After Adam Internet's Ericsson switches were power cycled, the 12 affected sites appeared to be working normally during the early hours of Thursday morning. However, the sites progressively failed again between two and ten hours after being brought back on line.

Thursday afternoon Adam Internet engineers discovered that of the 35 enabled sites, the 12 affected sites had a common revision of Ericsson hardware; Adam Internet formed the view that this may have been a common link. All Adam Internet networking infrastructure is running identical revisions of software, however the 12 impacted sites had a common release date, which was not the oldest or newest release in our network.

Given the identification of a common link, a decision was made to replace all Ericsson primary switches at affected sites. This was not a simple process, and took three teams more than nine hours to complete. This action resolved the majority of the issues with the network, and the situation was then closely monitored throughout Friday for any evidence of a recurrence of the original issue. At this point, despite the original cause



still not being conclusively proven, we are confident that the impact to customers has been resolved.

Adam Internet responded immediately and acted thoroughly to address issues which arose. According to all parties involved, what actually occurred had previously been considered impossible and it is important to keep in mind that these sites had all been working for up to 12 months or more on the same equipment, with no prior fault. Indeed, various other ISPs around Australia utilise identical or similar equipment and configurations to deliver their ADSL services.

Currently, we can only put this down to an underlying compatibility issue between one particular release of an Ericsson switch used in our AdamDirect exchanges and Silk Telecoms' Nortel core network.

As with any such event, Adam Internet will take the opportunity to analyse the events of this outage and learn from the outcomes of this analysis. At this stage, we are continuing to monitor the network closely and to fine tune performance as any remaining issues are identified.

Unfortunate events like this have highlighted the importance of keeping our customers informed, without you being burdened with lengthy hold times. During events such as this, customers are obviously unable to access their e-mail or our website to see details of any outages. As such, we have made a further enhancement to our system, and in three weeks we will have an Adelaide metropolitan telephone number available for you to call from any landline or mobile phone anywhere in Australia. This will use a new smart application that turns the summary text in any outage notification on our website to speech. This means that at any time (24 hours a day) you will be able to call this number and find out instantly the status of our network. As a further enhancement, in line with the new Cisco phone system recently introduced by Adam Internet, any time you call the Adam Internet helpdesk, this information will instantly be played back to you to save unnecessary hold times.

Adam Internet Management