

**PayPoint**

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Rt. Hon Nicky Morgan MP  
Chair, Treasury Select Committee  
House of Commons  
London SW1A 0AA

27 July 2018

Dear Mrs. Morgan,

Thank you for your letter dated 23 July. I am very sorry for the inconvenience and distress experienced by our customers and retailer partners and I welcome the opportunity to provide your Committee with information on our partial network outage on Saturday 21 July. High service availability is of paramount importance to PayPoint and it is highly unusual for us to experience an outage of this scale and nature. I recognise in this case that PayPoint fell short in our service, which I deeply regret.

Before providing answers to the questions in your letter, I thought it might be helpful to summarise our business and the incident.

**PayPoint**

In our 21 years of serving customers, PayPoint has developed a leading UK cash payment network helping people to make essential payments and access in-store services. Last year, we handled 386 million payments to a value of £7.3 billion on behalf of many of the UK's leading consumer service companies, including the big six energy companies, the mobile phone networks, BT, the BBC, most of the water companies and many housing associations and local authorities.

With respect to energy prepayment, many consumers top up their meters weekly or fortnightly, on one of their regular shopping trips, so that their meters do not run out. In addition, the utility companies normally provide a £5 emergency credit button facility to ensure that consumers are on supply until they can top up. In July, a £5 credit would typically take a few days to expire so an urgent situation would arise once the £5 emergency credit has expired. Consumers generally have a choice of, at least, PayPoint or the Post Office for making their payments.

Finally, our business has been built to recognise the criticality of service availability and the vulnerability of some of the consumers we serve. To deliver to this, we make substantial investments in service resilience, security, business continuity, testing and monitoring and we operate to industry best standards. However, issues are unavoidable in a service operation involving point of sale technology across a large network and we have clear service standards for addressing them. For instance, PayPoint terminals breakdown on average once every 3 years and when they do, our service standard is to swap them for a working terminal within 4 hours, which we achieve in the vast majority of cases.



## The Incident

During Saturday, 9,170 outlets out of 27,954 were unable to process PayPoint transactions until 4.10pm due to a technical issue, at which point a fix was implemented and terminals quickly came back available. The cause of the incident was that the impacted terminals lost their working configuration following the failure of an overnight terminal update. This was triggered by the earlier application of standard Microsoft server patches to our File Transfer servers on 19 and 20 July. These servers, which are split across two data centres, are critical to the overnight update process. We believe the patches were defective, however, further analysis is being carried out to determine this definitively.

Whilst we were addressing the impacted terminals, 18,784 operational outlets continued to serve over 98% of the UK population, as determined by Ofgem's measures of 1 mile urban or 5 miles rural. From our own data, we can see that for the outlets that were out of service, 64% had a working PayPoint alternative within 500 yards, 88% within half a mile and 96% within one mile.

We operate a retailer contact centre which was available from 8.00 am. This was overloaded with calls from impacted retailers, so we followed our standard practice of providing an automated message to retailers who could not get through explaining that a specific terminal type was not working nationally. This approach reflects the structure of our client agreements in which the consumers' service relationship is with their energy supplier and they provide the consumer facing contact relating to our service, as they know the identity of the customer and their personal circumstances and have a number of remedies to help those in distress.

## Responses to your questions

### 1. When did PayPoint first become aware of the failure and when were you personally informed of it?

We first became aware at 8.00 am when our retailer help desk opened to receive calls. As Chief Executive, I was first informed of the incident at 9.40 am, as part of our standard escalation processes. The plc Board were informed at 4.00 pm.

### 2. For how long were you aware of the system failure before issuing your first public statement on the incident? As of the morning of the 23 July I have been unable to identify any statements regarding the system failure on your website.

Our priority was to understand the problem and fix it, as quickly as possible. We placed a recorded message on our retailer switchboard to address the high level of incoming calls. We do not currently use our web-site for consumer-focused communications, other than to house our outlet locator. Once we resolved the problem, we placed messages on our Twitter and Facebook pages as well as sending a statement to national media. We recognise that we should have been quicker to update these channels and have adapted our processes accordingly. The incident has identified the need for us to significantly improve communication to consumers and retailers during major service incidents. We have instigated a fundamental review of how best to do this.

### 3. For how many hours were the services unavailable, either wholly or partially?

### 4. How many and what proportion of the merchants and customers were affected by the system failure?

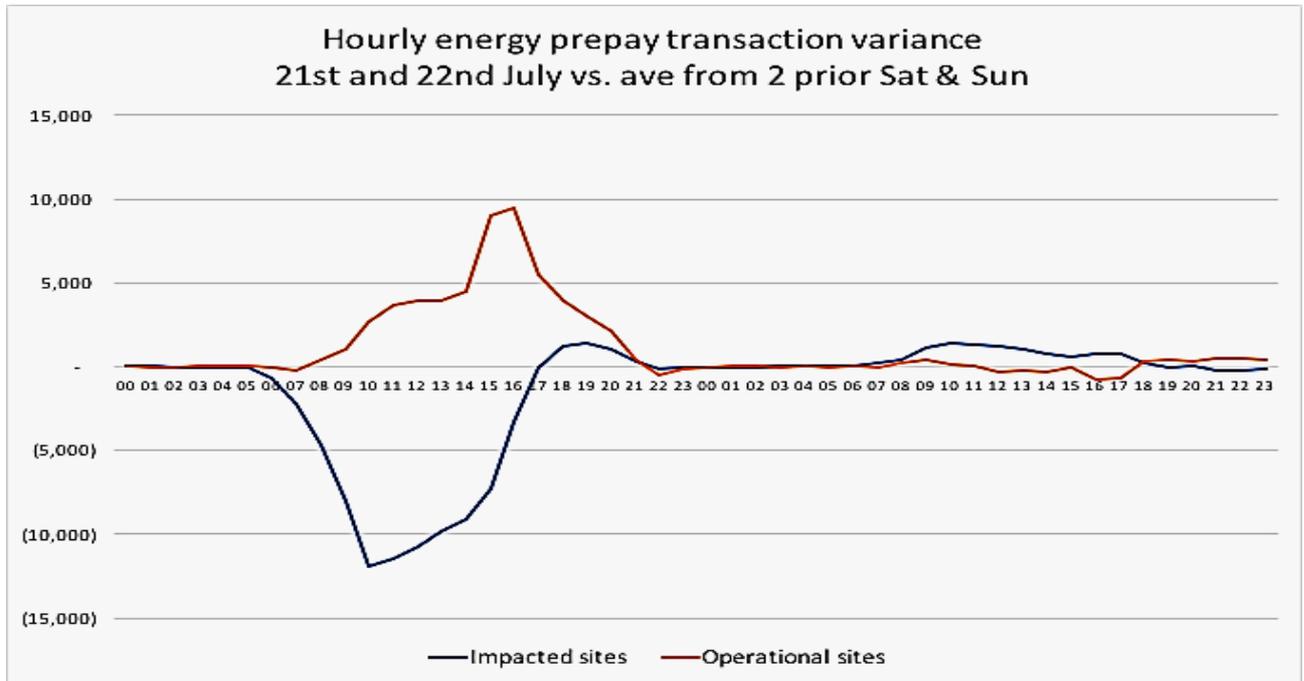
Our services were partially unavailable for 8 hours and 10 minutes after we became aware of the incident. 9,170 outlets (32.8% of the network) were unavailable from store opening and started restoring from 4.10pm when the fix was applied, as evidenced by the significant volumes we handled in affected stores after that time. The service remained available in 18,784 other outlets within our network which provided over 98% population coverage, using the Ofgem 1 mile urban, 5 miles rural measure. These working outlets (representing 67% of our network) were handling around 80% of our usual overall energy prepayment volumes through the period of the outage. In total on Saturday, allowing for an evening catch up, we handled 95% of typical energy prepayment volumes. Some consumers may have used other networks and others may have delayed their transactions as not as time critical, as they still had credit on their meters.



**5. How many and what proportion of the transactions could not be completed during the period of system failure, broken down by type of transaction**

In order to best estimate this, we have undertaken a comparison of the transactions that were handled on Saturday 21 July with average volumes from the previous two Saturdays (7 and 14 July). This analysis would suggest that on Saturday, relative to previous weeks, we were down by 22,900 energy prepay payments, 14,100 mobile phone top ups and 26,300 bill payments. We handled 637,000 transactions relative to 701,000 on average on the previous two Saturdays.

Our energy prepay transactions were overall down 5% in the day, having been down about 20% during the outage, with the bulk caught up in the evening. Whilst we are unhappy with being unable to process the 22,900 energy prepay transactions, with a further 25,900 transactions delayed to later in the day, this does significantly contrast with the 1.4 million figure being quoted erroneously in certain national media. We were also 4% up on Sunday 22 July compared to previous 2 weeks' average, showing that the catch up is likely to have continued. The following chart shows the pattern of activity over 21 and 22 July.



**6. What was the cause of the failure?**

A business as usual overnight terminal update failed on one part of our system, leading to the affected terminals losing their working configurations. This followed the application of standard Microsoft operating system patches to our servers. At the time of writing, we believe the patches were defective, however, we continue to analyse the incident to prove this definitively. This incident has highlighted existing monitoring and patching process controls need to be further strengthened.



**7. What controls were in place to mitigate against each failure and why did these controls fail to prevent the failure?**

We have comprehensive test procedures for all downloads and software releases. Additionally, we operate strict patching procedures and controls, including:

- All patches are applied to test environments first to ensure any issues discovered are not disruptive to live services
- Checks are carried out after patching to ensure key services are operating correctly on the patched server (in this case, both File Transfer servers initially operated as expected following patching on each day so passed these checks)
- Where we have a pair of critical servers, as was the case with our File Transfer servers, they are patched on different days to mitigate against service disruption, should we encounter problems on the first patched server

Despite following these controls and checks, we did not prevent the incident which has highlighted that they need to be strengthened further. Additional checks and controls have since been built into our patching process and additional monitoring and alerting has already been enabled.

**8. Will customers or merchants be entitled to compensation from PayPoint?**

Yes. The structure of our relationships with consumers requires us to work with our clients to ensure they are properly treated. We are, therefore, approaching all clients to address any consumers who need compensation. We have only received a small number of direct claims and are working through these.

We will make good to our retailers the commission that they would have earned on Saturday had the incident not happened.

**9. What steps will you be taking to ensure such similar system failures do not happen again?**

As highlighted above, we have already strengthened our patching processes. For example, we have added further pre-patching steps to check server health prior to the second server in a critical pair being patched. Additional monitoring has also been put in place to give an earlier indication of a fault in our overnight terminal update process to provide more time to overcome a system failure of this type in the future before it impacts our clients.

**10. Can you provide me with a list of all the unplanned outages over the past three years?**

Our payments are handled through two systems. Most energy prepayments are processed locally at the terminal which we describe as 'offline'. Other payments may be real time captured on our central systems, which we describe as 'online'.

In the last 3 years, we have had one other incident which affected all payments for a significant number of outlets. This lasted 86 minutes from 8am on the 15 June 2016, during which period approximately 8,000 terminals were unavailable.

Other than this we have had no incidents that affected offline payments in a significant number of outlets.



In terms of online transaction processing, there have been occasional short outages, as follows:

Date	Duration
08/08/2016	2 hours 57 minutes
09/08/2106	30 minutes
10/09/2016	56 minutes
19/10/2016	9 minutes
09/07/2017	1 hour 1 minute
10/07/2017	4 minutes
22/09/2017	55 minutes

Date	Duration
25/10/2017	47 minutes
03/11/2017	44 minutes
09/01/2018	50 minutes
31/01.2018	10 minutes
10/04/2018	16 minutes
04/06/2018	10 minutes

On a personal level, I have been in charge at PayPoint in all 21 years of operational service and have a deep personal commitment to the business and the customer service which is at the heart of it. The plc Board and executive team share this commitment. Our whole service has been built to recognise the criticality of service availability and the vulnerability of some of the consumers we serve through our retail network. We deeply regret that our service disruption affected consumers and retailers adversely and we will redouble our efforts to minimise the chances of future disruption.

If I can provide any further information, then please do not hesitate to contact me.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'D Taylor'.

Dominic Taylor  
**Chief Executive**