



WATER, WATER EVERYWHERE... HOW SUNGARD HELPED ITS CUSTOMERS IN THE SUMMER OF FLOODS.

“Unprecedented May-July rainfall across much of southern Britain, with many catchments close to saturation in July, produced hydrological conditions with no close modern parallel for the summer (June-Aug) in England and Wales. Localised flash flooding was very common during the wettest July since 1888 which culminated in extensive, severe and protracted floodplain inundations on the 20-25th - more damaging than the exceptional June floods and, in the worst affected areas, comparable with the extreme flooding of March 1947 (a snowmelt event). Peak river flows eclipsed previous recorded maxima in some - mostly central England - catchments, runoff patterns were more typical of a wet winter and summer flow regimes were redefined over wide areas. More than 300,000 consumers in Gloucestershire were temporarily without water supplies in late July but the un-seasonally high runoff left overall reservoir stocks at a late-summer maximum for England and Wales. The outstandingly wet summer soils allowed substantial aquifer recharge in some areas; a very rare circumstance in the context of the last 100 years.”*

Very heavy rain fell in Gloucestershire and surrounding areas on Friday 20th July 2007. This overwhelmed drainage systems and caused localised flooding to roads and premises. As a result many main roads and motorways were blocked. The floodwaters eventually entered sewers, causing contaminated water to flow into streets and buildings.

The Gloucestershire County Council (GCC) computer room located in Quayside House is adjacent to the river Severn and the Gloucester and Sharpness canal system. The Quay protecting the city centre had not been breached since 1947 and as rain continued to fall, river levels rose to their highest in 60 years. Water threatened to enter the ground floor plant room and so protective measures were put in place and the situation monitored.

Over the next 48 hours more rain water drained into rivers, causing levels to rise rapidly. This presented a more serious problem to towns on the Severn, notably Tewkesbury and Gloucester.

The county was now facing several problems at once; localised flooding and traffic disruption, flood water contamination and a major threat to life and limb from heavy flooding in low lying areas near the Severn. The Mythe water treatment works at Tewkesbury was flooded and shut down. The electricity substation at Castlemeads was threatened with flooding and was shut down. This caused power cuts across much of Gloucestershire. The nearby National Grid substation at Walham was threatened with flooding, but was protected by military and emergency service personnel working around the clock to build improvised flood barriers.

Within hours of the closure of the Mythe treatment works, 350,000 homes across Gloucestershire were without tap water.

* Source http://www.nwl.ac.uk/ih/nrfa/monthly_summaries/2007/07/summary.html#general.

GLoucester County Council Activities

The response to the emergency was led by "Gold Command", set up at the county's purpose built Police HQ at Waterwells, south of Gloucester. This is where the emergency services, the military, the county council and the utility companies co-ordinated their efforts.



The main council building, the Shire Hall in Gloucester, had been affected by loss of power and water and on Sunday 22nd it was decided to evacuate. The Emergency Management team and senior officers set up offices in the Tri-service control centre, next door to Police HQ.



Other staff were moved to buildings unaffected by flooding or worked from home.

The role of the council was to help with the rescue element of the emergency and also the welfare of those affected by flooding or without access to water supplies.

SUNGARD PUBLIC SECTOR ACTIVITIES

SunGard has been providing GCC with an extensive IT Facilities Management service since 2002.

SunGard attended Gold Command with members of GCC staff on the afternoon of Sunday 22nd July. There was now a significant risk of flooding to the Quayside House computer room and this was shut down at 5.30 pm.

It was agreed that the disaster recovery plan would be invoked. This service was provided by SunGard's chosen supplier, NDR (now merged with ICM).

NB The Council's DR plan, which is tested annually, states that the Hucclecote Centre, three miles east of Gloucester, should be used as the location for servers and PCs. However this was changed in the light of the threat to power and water and the relocation of GCC staff.

The DR needs were identified as:

- Access to critical systems and data
- IT support and connectivity for displaced staff
- Service continuity for the council's contact centre

These were achieved as follows:

1. ICM NDR delivered an ICT truck to Waterwells with replacement servers. This arrived 7.30am on Monday 23rd. SunGard used the latest backup tapes to rebuild the systems and the payroll run, which had been interrupted on Friday, was completed at midday on Tuesday 24th.
2. ICM NDR also supplied 10 wireless PCs to Waterwells that allowed SunGard to establish a room for GCC users to access these systems and, courtesy of the Fire Service, access the internet. These NDR facilities stayed in place until 5.00 pm on 31st July.
3. A temporary contact centre was established at SunGard offices at Chippenham and GCC staff were relocated and found accommodation locally. BT diverted all Shire Hall calls to new PSTN numbers made available by SunGard. Laptops from GCC stock were delivered and an ADSL connection used to provide access to the GCC website, news sites, the Red Cross etc. A virtual Private Network was constructed which allowed access to the DR version of ERIC, the GCC Social Services client record system. This was essential to allow vulnerable people to be identified as they called in and their information to be

accessed and relayed back to operational staff in Gloucestershire. A Starfax account allowed faxes from other organisations to be relayed to the contact centre electronically.

4. The temporary contact centre staff remained at Chippenham until close of business on Monday 30th.

The Council's Contact Centre provides a crucial information service to members of the public. GCC accepted SunGard's offer to house this team at its offices in Chippenham and, with a great deal of help from SunGard, was able to deliver this service to the community from the morning of Monday 23rd. The Contact Centre team remained in Chippenham for more than a week until the floods had receded.

During this period, many GCC and SunGard staff were themselves without running water. The SunGard office in Gloucester had no water for drinking, washing or flushing lavatories. Despite this, staff adapted to the conditions and concentrated on supporting the council's emergency response effort.

GETTING BACK TO NORMAL

On Wednesday 25th the threat to electricity supplies had receded and IT systems at Quayside House were brought back on-line. The Council's phone system also became operational again. The council had a Citrix based Remote Access Gateway, so 33 additional RSA tokens were registered and delivered to staff working at Waterwells, for use there or at home. The DR systems at Waterwells were used in "Read Only" mode to allow, for example, access to personnel records so that staff could be contacted at home. GCC Head of ICT Services, Dave Badham, summarised SunGard's contribution as

follows;

- "Thorough - SunGard had sub-contracted a recovery service to ICM NDR. We had tested our recovery plan with SunGard, ICM NDR and at our recovery centre and we were able to do it for real in an emergency
- Flexible - we had planned to use Hucclecote as our recovery centre but were able to change that to Waterwells without any fuss. SunGard provided accommodation to house our contract centre staff for the whole of that week at their offices in Chippenham. This bit wasn't in our plan nor in our contract but SunGard provided this very quickly and put in place the telephony to make it work.

- Fast - we asked SunGard to set it up on the Sunday afternoon. The kit arrived in a trailer (mobile recovery unit) before 7.00am on the Monday morning. Similarly the set up of our contact centre in Chippenham was with effect from Monday morning."

SunGard Public Sector, director of managed services,

David Williams said, "When an emergency hits and much is at risk it is the professionalism of those who take control that makes the difference.

I was proud to see that our team of managers and staff responded to the crisis so well. They merged seamlessly with the Council's team to deliver services and we were pleased to be able to offer safe accommodation and ICT services for their emergency contact centre. In such a crisis we all need to focus on what really matters and that is the safety of our neighbours."



ABOUT SUNGARD PUBLIC SECTOR

SunGard Public Sector UK serves a wide range of customers - public safety and justice agencies, local and central government and third sector organisations. Solutions include public safety and justice applications as well as managed services and management consulting. In the UK more than 50 million citizens - 86% of the population - are served by agencies that rely on SunGard Public Sector solutions.

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ABOUT SUNGARD

With annual revenue of more than \$4 billion, SunGard is a global leader in software and processing solutions for financial services, higher education and the public sector. SunGard also helps information-dependent enterprises of all types to ensure the continuity of their business. SunGard serves more than 25,000 customers in more than 50 countries, including the world's 50 largest financial services companies.

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