

WAVERLEY BOROUGH COUNCIL

EXECUTIVE – 6 SEPTEMBER 2011

Title:

REVIEW OF TELECOMS AND COMMUNICATION SYSTEMS

**[Portfolio Holder: Cllr Stephen O'Grady]
[Wards Affected: All]**

Summary and purpose:

To receive a report on the causes of the communications failure suffered at the Council's main offices on 5 and 6 July 2011 and of actions to be taken to mitigate against any recurrence.

How this report relates to the Council's Corporate Priorities

This report supports the overall aim of the Council to provide good value for money by maintaining the continuity of services to the public.

Equality and Diversity implications

There are no direct implications arising from this report.

Resource and legal implications:

The cost of the actions outlined in this report can be contained within the existing Business Continuity and telephony budgets.

Background

1. On 5 July an incident occurred caused by the cessation, in error, by BT Wholesale, of the circuits providing Waverley's 20Mb leased line carrying data and voice services. This resulted in all data traffic (data and voice) being routed over our secondary broadband connection which was an ADSL line of much lower capacity. The impact was significant for voice traffic and resulted in a loss of our telephone system for incoming and outgoing calls. On the data side the impact experienced was poor/slow internet access to the website and the same for remote Citrix access. E-mail services continued largely unaffected but were slower than usual.
2. Major business applications internal to Waverley were unaffected so most staff were able to use their business systems for day to day work. Internal extension to extension calls were unaffected.

3. The problems continued on 6 July when at approx 12 noon there was an unrelated failure which caused the loss of our ADSL backup line so from this time until approx 3pm we lost all communications – website, e-mail, and most telephony except for the extensions we had earlier re-routed to mobile phones. The ADSL line was restored at approx 3pm.

Actions taken during the outage period

4. The telephone switchboard problem was identified by officers at approximately 8.20am on 5 July and investigations of the problem were instigated immediately. By approximately 9am it was clear that the fault was with the delivery of voice (telephone) and data traffic over the Council's 20Mb lease line provided by Networkflow Ltd running over BT infrastructure.
5. At around 9.45am on 5 July a request was made to BT by Networkflow for the circuit ceased in error by BT Wholesale to be reinstated as a matter of urgency. The estimated time for this to be rectified was 24 hours. The Executive were notified of the problems being experienced and information of the telephone problem was posted on the website.
6. At the Heads of Service meeting on the morning of 5 July a list of key public facing extensions was gathered to allow for the redirection of extension calls to staff mobile phone numbers. This important resilience facility is a feature available as a result of the SIP trunk technology now used by Waverley, rather than traditional ISDN lines.
7. In the meantime IT took action to attempt to prioritise voice calls over data on the backup ADSL line aimed particularly at allowing calls to the switchboard to get through rather than receive the voice message explaining the temporary phone problem being experienced. This action was not successful in that it only led to a worsening of data communication - website and internet access and an only marginal improvement in voice contact. In addition action was taken to restrict officers' internal web browsing in order to protect bandwidth for the public accessing of our website and for e-mail traffic.
8. At 9am on 6 July normal service had still not been resumed and BT gave a revised time of 2pm for a resolution to the problem. In the meantime IT rolled back the voice priority actions of the previous day. Also further telephone extensions were reprogrammed to staff mobile numbers.
9. BT provided a revised time for the problem resolution of 3pm. An unforeseeable and unrelated failure due to a localised problem with a different supplier meant that between 12pm and 3pm the backup ADSL line was lost. During this period access to the website for the public was unavailable as was e-mail traffic.
10. The 3pm deadline provided by BT passed and a new time for full resolution of the lease line was provided of 6pm. At approximately 5.30pm all services were finally fully restored.

11. It is worth restating that throughout these issues the Council Offices' internal network was largely unaffected and internal business systems were operating normally, so work could be done.

Lessons learnt, actions taken and proposed future considerations

12. A second ADSL back up line has already been added to provide additional resilience at no cost from our network provider (Networkflow) in recognition of the problems experienced by the Council. In addition a more substantial back-up 10Mb lease line, which for added resilience, will not be provided by BT has been ordered through Networkflow at a significantly discounted rate of £3,400 per annum. The cost of this lease line will be met from savings in the Business Continuity budget resulting from the earlier introduction of SIP trunks for voice traffic. It should be noted however that as Godalming, like most of Waverley, is not served with a non-BT fixed line infrastructure (such as Virgin) that enables the point to point fast communications provided by suppliers other than BT, the lease lines we commission will still terminate at the Godalming BT Exchange and then be passed on through BTs traditional copper wire infrastructure to the Council offices.
13. As regards voice communications, emergency plans have been prepared for each service for the transferring of individual extensions or any other telephone lines. Therefore if for any reason the Council's telephone system is out of action these back arrangements will be invoked. In addition rather than requesting these changes of our SIP trunk provider staff in IT will in future be able to action these changes directly.
14. Officers are concerned that the arrangements outlined in the preceding paragraph would be effective for most phones but would not solve phone answering for callers to the Council's main switchboard number which accounts for approximately 25-30% of all telephone calls received by the Council. Therefore officers are investigating the option of a bureau answering service whereby calls to 01483 523333 would be redirected by IT to a bureau phone answering service who will answer all calls as 'Waverley' and either transfer calls to the relevant extensions (which would automatically be diverted to staff mobile numbers) or give out agreed messages on service disruption. There would be a monthly retainer charge for having this back-up facility available and a usage charge for the service if invoked. Estimated annual costs for this service would be approximately £2,400 per annum for the service and, if invoked, it is estimated that the cost per day used would be of the order of £750. If invoked as a result of a third party failure we would expect to recover the cost of invoking the bureau service as part of any claim for loss of service.
15. A separate standard broadband connection has now been provided to the Communications Team in their office to enable them to see a customer's view of the Council's website performance which is critical when services are disrupted as it is not always clear from IT technical monitoring results as to the impact disruptions are having on users' website access.

16. The failure also brought into focus the need to address shortcomings with regard to the Council's existing telephone system which is ten years old and will cease to be supported in the next few years. The system does not offer the business facilities now being demanded by service areas in particular to support the contact management teams being created within services. The existing system also has shortcomings in terms of business continuity and the ability to enable a more flexible deployment of fully functioning telephone facilities to those who may need to work from home either as part of flexible working arrangements or as a result of the offices being inaccessible such as in bad weather conditions. For these reasons an options appraisal is being undertaken to consider the business benefits and costs of upgrading or replacing the existing system the results of which will be available by the end of September.
17. The Council has now established a mirrored IT business continuity site at Mole Valley District Council, with the provision for business recovery in the event of a loss of the Council's data centre or the loss of access to the Central Offices site which will provide for the recovery of major business applications (including the website and e-mail) within 24 hours.
18. It is proposed that a further report be brought back to the Executive with the results of the options appraisal commissioned to evaluate the opportunities for replacement or upgrading of the Council's telephone system.

Recommendation

It is recommended that

1. the report and actions outlined be endorsed; and
2. a further report be brought back to the Executive in November on the options for replacing or upgrading the Council's main telephone system.

Background Papers

There are no background papers (as defined by Section 100D(5) of the Local Government Act 1972) relating to this report.

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