

Best Value Review of ICT

Hypothesis 4 Report

Summary sheet

<p>Hypothesis</p> <p>If we introduce alternative models of support provision (e.g. centralised / fix point of contact helpdesk), we would increase user satisfaction and productivity.</p>	
<p>Summary of recommendations</p> <p>We recommend that a centralised helpdesk is established to provide first fix support for general desktop and service specific applications with remote fixing facility. This hypothesis is concerned with considering the most appropriate form of first line support, the location (in-house or outsource) of the recommended support provision is considered in hypothesis 1. If an external provider is chosen, it is crucial that we own the management information generated by the call monitoring system. We further recommend that ‘superusers’ or ‘local experts’ are introduced to enhance communication regarding support issues.</p>	
<p>Service Benefits</p>	<p>Improved speed of response and problem resolution for users. Improved problem ownership. Greater co-ordination of support skills and resources. Greater control over performance of diverse set of external contractors.</p>
<p>Estimated future costs / efficiencies</p>	<p>Precise costs are dependent on further research once the overall picture of outsourced and in-housed ICT functions is determined, but there is evidence that the recommendations would realise efficiencies by providing a speedier service and reduce the number of site visits by engineers Indicative costs: £62,000 set – up costs. If in-house helpdesk, then further £20,000 training and recruitment The superuser model has minimal associated costs.</p>
<p>Current costs</p>	<p>User time wasted unnecessarily awaiting fixes via telephone estimated at 11,330 hours</p>

	per year.
Risks	Remote fixing may result in breaches of security. Risks that network may not have capacity for all HCC staff to benefit.
Volumes	Current volumes of support requests, PIs etc.
Ease of Implementation	Dependent upon whether internal helpdesk (set-up costs and preparation significant) or outsourced.
Further information / work required	Further detailed information on current figures. Feasibility study of integrating departmental helpdesks. Exploration with potential suppliers.

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Report

Summary of Hypothesis

Information gathered during the first stage of the review, particularly from users of ICT support services pointed to a potential improvement in support through alternative models of provision. Evidence of best practice, usually through a centralised 'first fix' helpdesk suggests that users can have a higher level of satisfaction and lose less productive time as a result of quicker problem resolution.

Seven models of support were examined during consideration of this hypothesis. This report outlines the four most appropriate models of support and considers the value of 'superusers' as an additional means of support.

Approach taken

- ❑ Data specific to the current ICT support service was extracted from the wider consultation/benchmarking exercise undertaken by Hedra in stage 1 of the review. This included areas of dissatisfaction for users and costs of current support to use as a foundation for further analysis and comparison.
- ❑ In addition, the team consulted the award winning BBC Helpdesk (European Call Centre Award for the Best Use of Technology) and several organisations identified as being exemplars of good practice by Cranfield, or by HEDRA. These included Tesco, Alliance and Leicester, and a number of local authorities including Warwick CC and Newcastle City Council. Where available, we obtained detailed information on operational practices and costs of alternative models of support. Detailed notes are available upon request.
- ❑ We also scrutinised HCC data on volumes of support requests, types of problems logged, departmental use of support provision and resolution speed and method figures.
- ❑ An extensive literary and Internet search was also undertaken.

Observations on current system

There are a number of elements to the current ICT support arrangements. Detailed information is available if required but the following is a summary.

ITNet provide a call logging centre at Birmingham which records and feeds the problems to the appropriate PC support teams, either within ITNet, other external 'resolvers' or to HCC support teams. Call logging and distribution service is provided to all areas of the County Council with the exception of County Supplies, Fire and Rescue and IT problems for the Call Centre, who all have their own helpdesk arrangements.

It is anticipated that future demands on support will increase and become more complex as the use of Lotus Notes is extended and the growth in significance of partnerships with external bodies e.g. Health.

Current volumes

- ❑ The ITnet call logging desk in Birmingham handles approx 2,400 calls per month from HCC.
- ❑ Of these 60% concern PC support, 10% concern mainframe, 30% are specialist systems e.g. SSIS
- ❑ For calls passed to the ITnet Helpdesk in County Hall, 43% are fixed within 2 hours, 72% are fixed within 8 hours and 95% of calls receive responses within 8 hours
- ❑ 59% of calls received at the CH ITnet Helpdesk were resolved over the telephone.

The Hedra user survey indicated that the user satisfaction could be increased through improvement in the following areas:

- ❑ Speed of response
- ❑ Speed of resolution
- ❑ Clarify of roles and responsibilities (avoid passing the buck)
- ❑ Understanding by IT personnel of business use
- ❑ Having to provide information once
- ❑ Informed of problem progress
- ❑ Equal support across sites
- ❑ Support for equipment at home
- ❑ No jargon
- ❑ 24hr / 6 day cover
- ❑ Appropriate level of expertise and consistent advice
- ❑ Immediate support for critical systems or minor problems

Consequently whilst considering the alternative options outlined below, the benefits / dis-benefits in relation the above have been considered.

Potential changes / proposals

The most effective and efficient helpdesks (Hedra benchmarking data, Helpdesk of the Year award) are found to be helpdesks which aim to fix the highest proportion of calls at first point of contact over the telephone. Such models eliminate the need for a costly engineer visit to the site and also increase user by providing a speedier response. The other key feature of benchmark helpdesks is clarity of ownership of calls. Typically the call receiver will retain ownership of the call and track it through to resolution before signing it off, rather than shifting ownership to engineers and specialist helpdesks.

While 59 % of HCC *PC support* calls are resolved over the telephone, the number resolved at first call at ITNet call logging centre is negligible. Some of the calls are resolved over the phone after they are passed to the County Hall ITNet technical desk who ring back the user:

others are resolved after the technical desk has passed the call to an engineer who then may ring the user and resolve the problem over the phone. Only 43% of PC support calls are resolved within 2 hours, leaving the remaining 16% of telephone fixes taking between 2 and 8 hours to resolve. The other 41% of calls require an engineer visit to the site.

The following options were considered to be the most likely models that would provide an increase in user satisfaction and productivity. Other options which were eliminated at an early stage due to obvious difficulties (e.g. lack of critical mass of staff and inefficiencies, failure to provide significant improvements on the status quo) are itemised at the end of the report.

Data concerning volumes of calls, types of call and costs has been difficult to ascertain as the HCC's contract with ITnet does not include many of the performance indicators and measures we would have liked to consider in this hypothesis. Consequently, it has not been possible to recommend a fully costed model. The costs associated with these models should therefore be taken as indicative and further work carried out. Costs associated with the following models are written where appropriate as from the perspective of an in-housed provision. Considerations as to whether PC support should be outsourced or provided directly by HCC is considered in Hypothesis 1. It is recommended that either method of provision must ensure that HCC own the management information generated by the call handling/monitoring system.

Option 1

Internal centralised helpdesk with first fix facility (i.e. majority of problems resolved during first call by helpdesk operator). This would incorporate departmental helpdesks (e.g. Social Services).

Features

Problems not resolved by first fix will be passed on to ITNet (or equivalent) PC support team, other contractors, in-house developers for engineer visits / resolution.

Staff will have customer service skills plus general technical skills with knowledge of comms, core systems and standard software packages used within HCC. All staff would have base line knowledge to deal with FAQs on specialist systems such as SSIS, while staff with specialist knowledge of SSIS systems would be available to deal with complex problems.

Users would have the option of reporting faults and amendments via telephone or by email.

Common call handling/ monitoring system used by all parties (e.g. Remedy / Quetzal, HEAT).

Ownership of problem (and therefore monitoring of progress) is retained within helpdesk environment.

Costs

Based on current levels assume same number of staff, (ITNet CSC, tech desks + dept helpdesk staff) but 3 (call-logging) staff will need to be at a higher level of skill than at

present. Therefore assume £24,000 extra salary costs. NB: If additional helpdesk costs are incurred, this will be more than compensated by a reduction in the numbers of engineers making site visit, therefore no overall additional support costs are expected.

Recruitment and training costs (in-house helpdesk)– £ 20,000

Assumption that call handling system provided by PC support contractor (Otherwise £1,000 per Remedy licence)

Project management / set-up costs £ 62,000

Extra skills/ training required

- ❑ Customer service skills with technical understanding.

Service Benefits

- ❑ Improved speed of response and resolution
- ❑ Improved ownership / monitoring of progress
- ❑ Quicker fixes by ensuring appropriate level of training
- ❑ Eliminates one level of reporting
- ❑ Potentially less duplication of information
- ❑ Improved access to remote sites as a result of primary aim to first fix.
- ❑ Service is flexible to cope with increasing demands from partner relations.

Efficiencies

- ❑ By resolving the exactly the same percentage of calls by telephone at first contact, we would realise non-cashable efficiencies in reducing wasted staff time equating to 34,000 hours per year.
- ❑ If we could increase the proportion of fixes resolved by telephone, we would realise efficiencies of approximately £60 per call. Hence, if an additional 10% of support calls were resolved by phone, this would realise an estimated £155,600 per year.

Service Dis-benefits

- ❑ Need to ensure skills and equipment are kept up to date in fast changing environment.
- ❑ Potential difficulty in recruitment / retention in a competitive environment where public sector may be less attractive.
- ❑ Relies on the ability of the user to describe the problem and respond to questions accurately.

Implementation Issues

- ❑ Need to establish appropriate venue and IT arrangements.
- ❑ Recruitment.
- ❑ Creating a seamless link with complex network of support contractors.
- ❑ Need to establish knowledge bank database (via Intranet or paper?).
- ❑ Should the changeover be phased or 'big bang'.
- ❑ Decision required hours of service.

Risks

- ❑ Relations with contractors are disrupted.
- ❑ Support is disrupted during bedding in.
- ❑ Difficulty in attracting appropriate staff.
- ❑ Decision to bring this aspect of IT provision in-house impacts on overall future contract arrangements.

Further Information / work required

- ❑ Carry out a further work on full costs involved and check out with potential suppliers the costs of outsourcing this part of the support provision.
- ❑ Check figures on volumes, performance indicators, departmental helpdesks.
- ❑ Investigate information knowledge needs of call handlers to answer specialist systems calls (e.g. SSIS, Environment systems).

Option 2

Internal, centralised helpdesk with first fix feature (as in option 1) plus remote fixing facility for PC desktops.

Features

Staff will have customer service skills plus general technical skills with knowledge of comms, core systems and specialist software packages used within HCC.

Problems not resolved by first fix will be passed on to ITNet (or equivalent) PC support team, other contractors, in-house developers for engineer visits / resolution.

Common call handling / monitoring system used by all parties (e.g. Remedy / Quetzal)

Ownership of problem (and therefore monitoring of progress) is retained within helpdesk environment.

Operators will be able to access 'problem machines' remotely within strict access protocols.

Potential for upgrades and software installation to happen remotely.

Costs

As option 1 plus the following.

On assumption that remote fixing will reduce the number of required site visits, assume operator levels of 14 –16.

Purchase of call monitoring system and remote fixing facility (e.g. Proxy or Remotely Possible) will cost approximately £10,000.

Independent installation of remote fixing software to all HCC desktops costing approximately £100,000 (although would look to combine it with another software rollout in the future if possible).

Telephone costs (remote fixing) estimated at £3,700 per quarter. Figures derived from BBC helpdesk with remote fixing which has ten times the volume of calls as HCC expects and has telephony costs of £37,000 per quarter.

Extra skills / training required

- ❑ Customer service.
- ❑ Technical skills.
- ❑ Security standards and protocols training.

Service Benefits

- ❑ As option 1 plus following;
- ❑ Likely additional increase speed of resolution particularly in relation to remote sites.
- ❑ Currently 59% calls resolved on telephone.
- ❑ Enhances support for Workwise as more problems could be resolved in the home or other non-HCC sites.
- ❑ Also software installation and upgrades could be delivered via remote system.

Efficiencies

- ❑ Reductions in support engineers 'on-site'.
- ❑ Faster fix time for increased proportion of users.

Service Dis-benefits

- ❑ Higher, unrealistic expectations that all problems will be resolved quickly and easily.
- ❑ Requires a higher level of skill at helpdesk.

Implementation Issues

- ❑ Substantial set-up costs.

Risks

- ❑ If security and safety protocols are not rigorous and respected, then risk of confidentiality being breached.
- ❑ Implementation.

Further Information / work required

- ❑ As option 1.
- ❑ Carry out feasibility study of network capability for remote fixing.

Volumes and assumptions

- ❑ Current calls to help desk average 2,400 per month. Assume similar levels after changes
- ❑ Current target is to respond to 95% of *PC support* calls with 8 hours, fix 70% calls within 4 hours and 40% calls within 2 hours.
- ❑ To calculate efficiencies gained by resolving the same proportion of calls at first point of contact, we have assumed an average of one hour per fix for calls fixed by telephone within 2 hours and an average of 6 hours for calls resolved over the phone between two and eight hours. The 'wasted time' figure is based on an assumption that one third of the time is unproductive.

Additional Support Provision

'Super users' or 'Local experts'

This is generally informal support adopted by several of the best practice organisations that we considered e.g. Tesco's, Crawley Council. We are also aware that Social Services have approximately 20 'local experts' often Office Managers who provide this function to some degree.

Our research has identified that 'superusers', 'IT guides' or local experts are used for three main purposes:

- ❑ Communication; acting as a local link between the central point of support and a local team / office relating to new installations, upgrades and immediate system difficulties.
- ❑ Support; acting as first point of support for IT problems experienced by local staff as a substitute for helpdesk.
- ❑ Training; providing 'on the job' training to individuals tailored to meet the needs of their specific job.

The extent to which super users were used for some or all of these functions varied from one organisation to another. All, however, recognised the value of the role in relation to communication.

The super user / local expert function needs to have the following features;

- ❑ Consistent management acceptance and recognition that it is a valuable part of someone's role.
- ❑ The role should not exceed 5 - 10% of a super users time.
- ❑ Candidates who have an interest in developing their IT skills.
- ❑ Close monitoring to ensure that the IT support element of the job does not exceed the specified target.
- ❑ Effective communication channels between central helpdesk and local experts need to be established.

It has not been possible to gain any cost benefit information from organisations where this support function is in existence (largely due to its informal nature).

Recommendation

Communication

We suggest that a 'superusers' or 'local experts' are recruited to act as focal point for communication between corporate ICT and services, relating to major faults, software rollouts or other ICT issues requiring co-ordination. In the case of a major system failure, corporate ICT would inform these local experts who would keep their colleagues updated on expected time scales for fault resolution. When rollouts such as lotus notes 5 is being planned, the local experts would advise corporate ICT of the most appropriate time for installation. It is envisaged that the role of the superuser in this context would not exceed a few hours per month. No financial implications are associated with this role. Service staff would be recruited on the basis of their interest and location.

Support

We do not recommend that local experts play a support role. However, this could be reviewed after new support and helpdesk systems are introduced.

Training

The use of 'local experts' to provide additional ad hoc support for training should be considered to supplement any move to e-learning methods, but should be separate from the role being recommended in this hypothesis as it would have more resource implications.

Intranet

Another form of alternative support provision would be to place the most common problems and potential solutions on the Intranet for all users to access. In spite of extensive research, we have been unable to find examples of this in other organisations. Whilst in the majority of cases this could be very valuable, and is technically possible, there is the risk that some ICT problems are misinterpreted and become exacerbated rather than resolved.

We recommend that this is considered more closely once other revised support arrangements are in place.

Models considered, but not recommended

The team explored a number of different models to provide alternative helpdesk arrangements. The most appropriate options are explored above. We will briefly explain at this point why two other models were not considered further.

1) Internal centralised call logging provision

This would equate to bringing the function currently provided by the ITNet Birmingham helpdesk into HCC, resourced and managed by HCC staff e.g. in the Customer Service Centre at Kings Court. Whilst it would remove one of three points of contact for users, the team decided that it was unlikely to increase speed of response or resolution to any significant

degree (two of the key aspects identified by Hedra as causing user dissatisfaction). The majority of calls would still require a minimum of two points of contact, and information provision, for the user which would contribute to delays in the problem being resolved.

2) A Helpdesk in each department to provide general desktop and specific system support.

The team observed that this is the model currently existing in a few HCC departments. But in considering the organisation as a whole, and its future environment, it was decided that this would be an inappropriate model to adopt across the organisation. Main reasons for this decision include;

- ❑ Increasing need to work across departments and with external partners require a more corporate approach to ICT and its support.
- ❑ Lack of economies of scale and impact of critical mass.
- ❑ Evidence from best practice organisations all support a centralised helpdesk.

IT development / investment

Remote fixing system such as 'Proxy'.

Further information / work required

- ❑ Discussions with potential suppliers to determine likely costs of service provision.
- ❑ Detailed investigations to confirm accuracy of figures used and assumptions made.
- ❑ Feasibility research into the costs and suitability of various call handling and remote fixing system available.

Recommendations

It is clear that user satisfaction and efficiency would be best served by a helpdesk that offers first - contact fixes for the greatest proportion of support problems. Corporate policy and efficiencies from economies of scale point to the amalgamation of standard PC support and departmental helpdesks. Remote fixing would offer additional value in allowing the installation and upgrading of software, thus releasing significant efficiencies. Once a decision has been made concerning the overall portfolio of in-house and outsource ICT functions within HCC (hypothesis 1), then further research should be carried out to investigate the different options to achieve the helpdesk provision recommended.

The establishment of a superuser model as a communication channel should be implemented to facilitate communication during the introduction of new support arrangements.

We recommend that a pilot to consider extending the support role of the 'superuser' should be carried out within HCC once new support arrangements are implemented and firmly established.