

Bedfordshire Police

*Best Value review of information technology and
information systems*

December 2003

o/o

)

£

Contents

Section	Page
Introduction	3
Background to the IT/COMMS Department	7
Overall findings	10
Helpdesk and IT support	12
Systems Administration	19
IT Training	24
Communications systems, equipment and radio maintenance	28
Summary of recommendations	29
Appendix A: Results of internal customer questionnaire	32
Appendix B: Table demonstrating the number of internal and external training days for helpdesk, technical support and application support staff	42
Appendix C: Current Helpdesk Process	44
Appendix D: Helpdesk statistics (October 2003)	45

Introduction

1. Bedfordshire Police commissioned PricewaterhouseCoopers Limited Liability Partnership (LLP) in May 2003 to undertake a review of its information technology and information systems (IT/Comms) functions as part of its Year Three Best Value review programme. This report presents the main findings of the review.

Approach to the review

2. The Local Government Act 1999 requires Police Authorities and other public sector organisations to plan and carry out a series of Best Value reviews. In conducting reviews, Authorities are required to make reference to a framework known as “the 4 C’s” and to:
 - **Challenge** why the service is being delivered and whether it meets the needs of its customers
 - **Consult** widely on how the service is provided
 - **Compare** the Constabulary’s performance with its peers
 - **Compete** by examining alternative ways in which the service could be delivered.
3. The police are also expected to have reference to *Best Value and Planning Guidance for Police Authorities* published by the Home Office in 2003.
4. The review has been undertaken in line with the Bedfordshire Police Authority and Force’s agreed approach to Best Value. The approach is outlined in seven stages described below:
 - **Stage 1** – Review planning and team start-up
 - **Stage 2** – Scoping study and baseline assessment
 - **Stage 3** – Detailed Best Value review agreed by Project Board
 - **Stage 4** – Reporting of key findings to Project Board
 - **Stage 5** – Develop options for Police Authority and Chief Officers

- **Stage 6** – Develop costed performance improvement plan
 - **Stage 7** – Monitor (to be undertaken by Bedfordshire Police)
5. PricewaterhouseCoopers LLP was commissioned to undertake stages one to six of this review. We reported our headline findings to the project Board on the 20 October and our costed recommendations to the Board on 24 November 2003. This report presents our full findings and supporting evidence.
6. The findings and recommendations set out in this report draw on the following sources of evidence:
- interviews with over 50 stakeholders including providers and users of the services under review (challenge and consult);
 - questionnaire returns from 203 police officers and police support staff, from a sample of 500 – selected by the Police Force (consult);
 - benchmarking data from the ACPO 2002 survey of IT/Comms services and comparison of Bedfordshire Police with the other forces in its benchmarking ‘family’ – Essex, Sussex, Leicestershire, Hampshire and Kent (compare and compete);
 - PwC’s wider experience of conducting similar reviews across the public sector (challenge).
7. In the report, references to benchmarked forces are made as follows:
- Force A – Essex
 - Force B – Sussex
 - Force C – Leicestershire
 - Force D – Hampshire
 - Force E – Kent
 - Force F – Avon and Somerset

Scope of the review

8. The initial scoping study for this review considered a wide range of IT/Comms functions in order to select a limited number of key areas on which the main review should focus. The long list of functions was:

- Procurement of IT/Comms
- Network installation and support
- Installation of IT
- Communication equipment and systems
- Infrastructure support and housekeeping
- Application support and housekeeping
- Telephony
- Helpdesk
- Project management
- IT training
- Administration of systems
- Radio maintenance

9. Following the scoping study, the Project Board agreed on 14 July 2003 to address the following key areas in the detailed study:

- IT Support including the helpdesk
- Administration of systems
- Communications equipment, systems and radio maintenance
- IT training
- A light touch review of telephony

Development of recommendations

10. In the following sections of this report we report the results of our 4Cs assessment of each key service area and propose recommendations for the future. We have developed these recommendations with reference to the following criteria. Recommendations should:

- Be compliant with the National Strategy for Police Information Systems (NSPIS)
- Complement the Police Authority's long term objectives and performance
- Make efficiency savings where they can be made
- Optimise the contribution that the IT/Comms function makes to information exchange across the force and the wider criminal justice system
- Ensure that services are fit for purpose and meet the needs of users

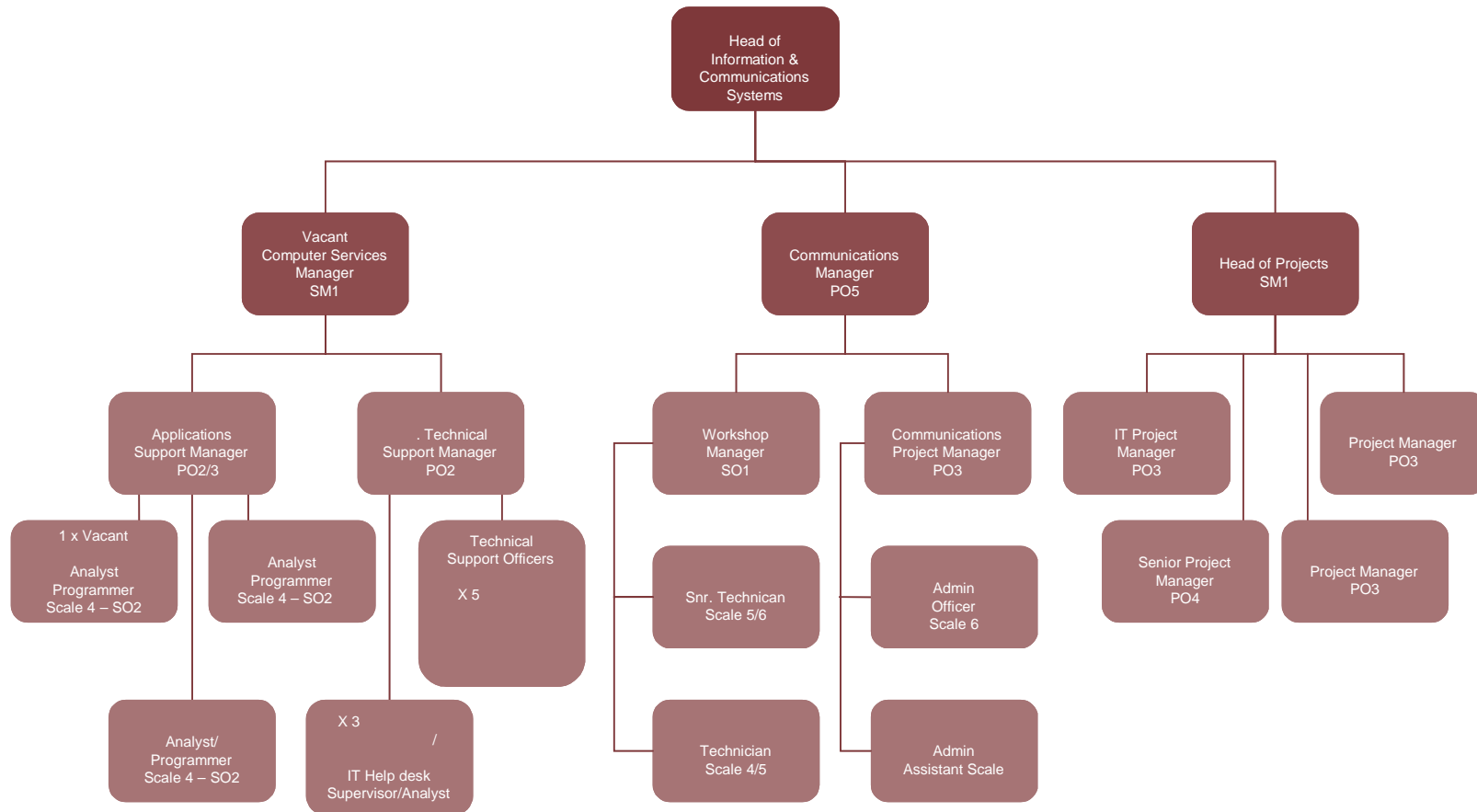
Acknowledgements

11. The review team would like to thank the IT/Comms department, the training department and systems administrators for their assistance during the course of our review. We would also like to thank members of the Project Board.

Background to the IT/Comms Department

Structure

12. The organisation chart for the Department is set out on the following page. This outlines the three key sections for the Department as follows:
 - Computer services (the Computer Services Manager post is currently vacant)
 - Communications
 - Projects.
13. Each section head reports directly to the Head of IT/Comms, who in turn reports to the Director of Finance, who is part of the ACPO team.



Budget

14. The IT Department has an annual budget of approximately £3m, comprised as follows:

Category	2003/04 Budget (£)
Admin Pay	790,700
Admin National Insurance	74,700
Admin Superannuation	104,300
Admin Allowances	100,700
Admin Overtime	17,800
Staff Advertising	0
Electricity	1,100
Petrol/Diesel/LPG	1,400
Transport H/A Recharge	17,800
Public Transport	1,300
Essential User Lump Sum	7,100
Essential User Mileage	8,700
Casual User Mileage	3,700
Furniture	1,000
Private Line Rentals	700
Telephone Charges	635,300
Computer Services	1,063,100
Radio – Maintenance	298,000
Radio – Other	19,600
Subsistence Expenses	2,200
Total	3,149,200

In addition there is a Capital Spend Programme 2003/04 comprised as follows:

Code	Description	£000
B8029	NSPIS Personnel	100
B8030	Resource Management	100
B8034	Registry (Groupware)	100
B8035	Phoenix	23
B8036	NMIS	311
B8037	Financial Management System	26
B8043	CIMS	115
B8051	e-policing	25
B8052	Single View Policing (CRISP)	150
B8059	Property Management System	20
B8060	Automated Network Backup	50
B8061	Holmes H/w and encrypt. Upgrade	40
B8062	Network Server Upgrades	35
B8063	Police Authority IS/IT Penalty Notices for Disorder	77
Subtotal Other		1,197
B8044	Airwave	1,705
Total Capital Programme		2,902

Overall findings

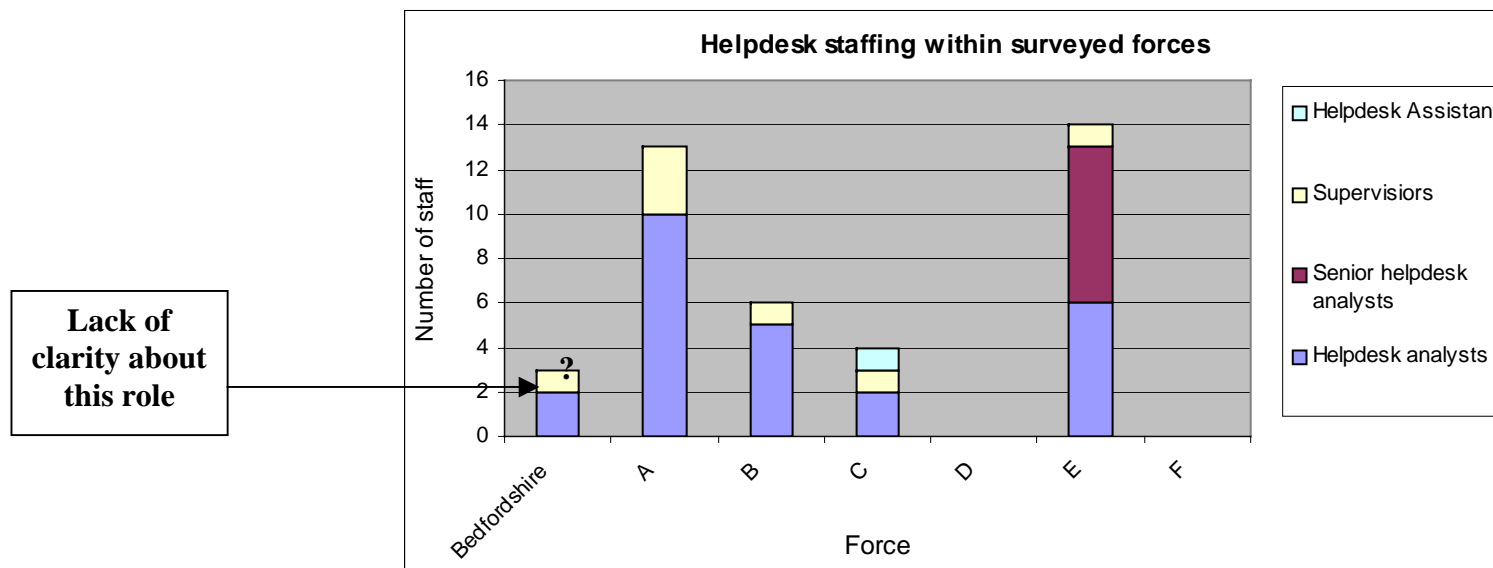
15. In this section of report we present some overarching messages about the Bedfordshire Police IT/Comms function. This provides important context for the consideration of the detailed service areas set out in the subsequent sections of this report.
16. The Bedfordshire Police IT/Comms department is – when compared to other forces – a small and streamlined one comprising 28 staff. There is a ratio of IT/Comms staff to total staff of 1:65 which compares with an average of 1:54 across the Eastern Region Forces (ACPO survey 2002). The service is partly outsourced as the force does not develop its own systems in-house.
17. The department is judged by senior officers to be performing well and improving. It is seen as being well led and described by one senior officer as a ‘can-do’ part of the organisation. The force has a robust business change process in place and the department is fully involved in this process. While it was not part of our remit to review the force’s IT/Comms strategy, we found that the department is working positively towards the implementation of the strategy.
18. The results of the customer consultation exercise demonstrated that the IT department is on the whole perceived to be performing well by the majority of respondents. The ACPO 2002 survey found that 84% of staff agreed or strongly agreed with the statement ‘Overall I am satisfied with the level of service I receive from the IT and Communications department’.
19. Our headline message is, therefore, that little or no benefit would be realised by an approach that involved major and large scale outsourcing or restructuring of the IT/Comms department and its functions. The recommendations that we make generally relate to performance improvements rather than to cost efficiencies. We have not sought to quantify in detail any financial benefits of these potential performance improvements.
20. The fieldwork that we conducted suggested that performance improvements could be obtained in the following areas:
 - the helpdesk function;
 - systems administration;
 - IT/Comms training.
21. These three areas are considered in further detail in the following sections of the report.

Helpdesk and IT support

22. In this section of the report we consider the helpdesk, technical support and applications support. For each function we report the key issues arising from the review and make recommendations for the future.

Helpdesk

23. The helpdesk is a central point where customers of the service (staff force-wide) can call to receive help resolving an IT query over the phone, or if the problem cannot be resolved over the phone, the call can be assigned to technical support officers or analyst programmers. The service is usually available from 8am until 5pm on weekdays only. There are currently two full time helpdesk analysts within the IT department providing 1st line support. There is also a technical support officer who operates in a supervisory capacity.



24. The results of the consultation exercise conducted as part of the review indicate that the helpdesk staff are highly regarded by their colleagues across the organisation. 76% rated their helpfulness as good or excellent and 72% rated their professionalism as good or excellent.
25. The main criticism that was consistently levelled against the helpdesk was that customers sometimes experience difficulty getting through to helpdesk staff. 25% of customers who use the helpdesk service rated the availability of staff as poor or very poor. Unsurprisingly, callers to the helpdesk want to be able to speak to a helpdesk analyst immediately and can be frustrated when helpdesk staff are busy or unavailable. Appendix C contains a map of the current helpdesk processes – highlighting those aspects of the process that stimulated most complaint. The diagram suggests that there are two (related) aspects to this issue:
- the availability of helpdesk staff throughout the day;
 - the adequacy of systems for receiving queries while the helpdesk is busy.
26. These two issues essentially relate to the ‘supply side’ of helpdesk services. We also identified a third area for potential improvement as being the ‘demand-side’ – that is systems for ensuring that the helpdesk is used appropriately by officers and staff, thereby allowing the helpdesk to focus its resources most effectively.

Availability of staff

27. A number of those consulted felt that it would be beneficial if the helpdesk were to be open for longer than the current 8am-5pm. Comparison with other forces suggests that Bedfordshire Police provides a level of helpdesk cover – in terms of opening hours – that is similar to other forces of the same approximate size. The table below shows the range of opening hours provided by all the forces surveyed – forces B and C provide the best benchmark to Bedfordshire in terms of size.

Comparison of surveyed forces - helpdesk cover					
	Standard working hours	Extended working hours	Additional weekend cover	24hour Cover (365 days a year)	Shift working
Force A		6am – 12pm			9 hr shifts
Force B	9-5				
Force C	8-5		limited 2 hr health check		
Force D		7am – 10pm	7am until 2.45pm		Under review
Force E					12 hr shifts
Force F					
Bedfordshire	✓ 8-5	✗	✗	✗	✗

28. Our conclusion from this is that helpdesk opening hours are not the main cause of dissatisfaction. A technical support officer is on call 24 hours a day and officers can contact that person directly when the helpdesk is closed. Our analysis shows that there are typically only 8 or 9 queries left on the helpdesk answering machine overnight. The main problem is the accessibility of the service **during** normal opening times.
29. One option for dealing with this issue would be to recruit additional staff to the helpdesk. Our view is that such a step should not be required given the current overall level of demand for the helpdesk and the nature of the calls logged. Although this option might be kept in reserve and considered again in the future, we believe that the IT/Comms department is following the right strategy by trying to:
- manage the peaks and troughs of demand for helpdesk time over the course of the day;
 - reduce overall demand for helpdesk services.

Managing levels of demand

30. Accepting that it is not likely to be cost effective to provide sufficient helpdesk staff to answer all queries at all times of day (particularly during the peak hours around midday), the helpdesk has implemented a new answering service on which callers can leave details of their query to be responded to by helpdesk staff within 10-15 minutes. It appears that this has not been a popular solution – 91 of all customers surveyed by us made some kind of comment about the helpdesk answering service, 74% of which were negative comments.¹ It is inevitable that some staff will always react badly to being asked to leave messages on such a service. But there may be ways of making some improvements to the operation and perception of the service.

31. We make two recommendations in this area:

- *the IT/Comms department should review the answering service, particularly the current menus, with a view to shortening the process. This exercise could involve some consultation with users (or representatives of users) in order to attract a greater level of understanding about the system;*
- *the IT/Comms department should further develop and promote alternative means for users to log their requests for help. The Sunrise call logging system has the functionality to allow users to log their calls on the intranet and track their progress. The completion of this process should be prioritised.*

Reducing levels of demand

32. We found a level of concern – expressed particularly by senior officers – that staff may, on occasion, use the helpdesk to resolve problems that either should not arise (eg forgetting passwords) or should be resolved by the user (eg basic problems with applications). Reducing the number of such calls would help reduce the level of demand for the helpdesk and leave the staff more time to respond to genuine problems. The helpdesk's knowledge management system is fed into a set of 'frequently answered questions' that is accessible on the desktop of all staff members. We heard, however, that this is not often referred to in advance of a helpdesk call.

33. We recommend:

- *that clear guidance or a protocol be issued to staff on the helpdesk service – setting out what it should and should not be used for – and that this issue should be covered in the basic IT training received by new recruits and serving officers. The protocol could usefully advise on peak periods of demand for the service so that callers know when best to call back. If this approach does not reduce the number of inappropriate calls, consideration should be given to a more directive approach (ie the helpdesk would simply refer callers to the FAQs).*

¹ See Appendix A (Graphs 1A, Graph 1F, Table 1G, and Table 7B)

Technical support

34. The Technical Support Manager oversees a team of six technical officers and the helpdesk function. The team offers 24 hour support, with five staff working on a five week rota, to provide support for critical IT problems. Technical support officers offer a 2nd line of support for all issues related to desktop maintenance. The Senior Technical Support Officer primarily supports the servers and the infrastructure. The technical support team generally gives cover from 8am until 4 or 5pm. Each officer is on call for a full seven days (cover starts at 4pm and runs until 8am and all weekend). The geographical area of the force is split into three (North, South and HQ) and staff rotate their responsibilities each week. The staff that we interviewed were generally happy with the working patterns in place.
35. The Technical Manager has a lot of contact with external contractors, evaluating new equipment, putting contracts in place, renewing contracts, pricing etc. External contractors are used in the maintenance of software and an external company is used to look after laser printers.
36. The Senior Technical Support Officer and the most senior Technical Support Officer work as deputies. The latter's role involves the production of performance statistics for the department. The person in post is tasked with freeing up the time of the Technical Support Manager and prioritising the workload of Technical Support Officers. The introduction of this position means that the department has a more accurate idea of where staff are spending their time, how much time is spent travelling, how much on jobs etc. A number of those interviewed, however, considered that there would be benefit in clarifying this role more precisely and drawing up a job description. Others would value more individual feedback on the quality of the work that they do in response to calls to the helpdesk – rather than management information simply being channelled to the Head of IT.
37. When staff were asked what improvements they would like to see within the department, a resounding majority answered an improved commitment for training and development within the department. The issue of training is considered later in this report, but the main issue for this group of staff was anxiety that they were becoming 'deskilled' and that there were few opportunities for career development.
38. Our main recommendation in this area is:
- *feedback received on support officers' performance on jobs should routinely be shared with the officer concerned – unless there are particular reasons why it should not (eg a disciplinary procedure is underway).*

Applications support

39. The Application Support Manager manages a team of three staff who are responsible for supporting 58 applications and systems. Analyst programmers work a flexi-time arrangement of 37 hours per week. Helpdesk and systems administrators act as the first line of support for systems and application queries. If they are unable to deal with

the query, calls are passed on to the applications support team. For smaller systems that are not supported by a systems administrator, calls tend to go straight through to applications support staff. One of the analyst programmers carries out any development work there is in the force i.e. data extractions and project work. Application support only receive a limited number of calls from the helpdesk, most calls are made up of customers calling them directly.

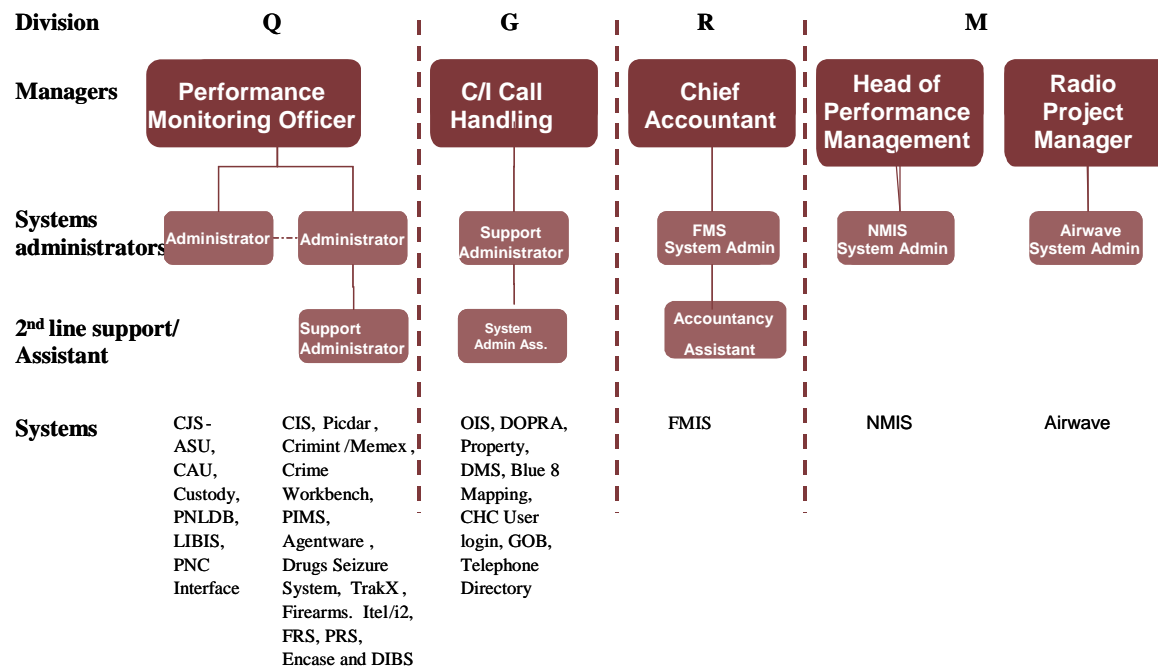
40. In general, applications support staff deal with issues at a server level and systems administrators deal with simpler queries at a database level. Analyst programmers considered that the only time calls should be coming into the department is when the systems are not working, not when systems administrators are absent from work. They felt that the lack of systems administration resilience often impacts on the team, as they receive numerous phone calls 'all day, every day'. During consultation it was suggested that one of the analyst/programmers has been acting as a systems administrator in recent months until a replacement is found. (This issue is covered in more detail in the next section).
41. The Force policy is not to develop systems in-house, but concern was expressed that this has led to staff on divisions just developing their own systems. Applications support staff also regretted the lack of opportunities for them to develop their own skills by developing in-house systems.
42. Our view is that it would be a retrograde step for Bedfordshire Police to revert to in-house systems development (it would be very likely to be more expensive than buying in packages). It is force policy that the IT/Comms Department retains control over the adopting of new systems but there appears to be a need to reinforce the application of this policy.

43. We recommend:

- *that the applications support team continue to act as a 'gateway' through which the purchase of all new systems should be routed in support of the existing policy. The team could use its expert knowledge to recommend the best system or advise about how existing systems could be adapted to serve the users' needs effectively. Economies of scale in purchasing may also be derived from this centralised approach.*

Systems Administration

44. There are currently 6 systems administrators and 2 assistant system administrators who service 31 different systems. The systems administrators sit in different parts of the organisation and there is little communication between the different divisions. The structure of the team is as below (this does not include the Intranet/internet system admin staff):



45. An internal report on the current arrangements with respect to system administrations cost, resilience and management was completed in July 2002 (“Systems Administration – Business Case for Change”). This report analysed the structural location and the working methods of the systems administrators and examined alternative options going forward. The results of the review recommended that the status quo was retained, however there were five additional suggested improvements:
- System Administrators should formalise and publicise resilience arrangements for system administration activities;
 - Q Division should consider creating an environment that enables the Crime and CJS system administrators to form closer working relationships. This would resolve current resilience issues with respect to the CJS system;
 - IT Department could be used to provide resilience for systems but only in emergency situations as a last resort and should not be relied upon to provide day-to-day cover;
 - IT Department should identify ways of improving the business processes in relation to the interaction between system administration work and the IT/Comms Department; and
 - IT Department should explore whether aspects of the administration activities necessary to protect system and database integrity should be centralised under the IT/Comms department.
46. Following consultation, Q Division has formed closer working relationships between the relevant administrators in the Division, and the two systems administrators now provide cover and support for each other’s systems, thus improving resilience. However, it appears that the baseline for the remaining suggestions remains similar to the status at the time of the review and resilience issues still exist elsewhere amongst the different divisions. The importance of addressing this issue of resilience has increased since the previous report due to the continued implementation of NMIS. It is perceived that without effective data loads from the different systems into NMIS, accurate reports will not be able to be generated. Resilience is fundamental to successful performance reporting within the force.
47. There are no documented standard procedures in place to ensure consistency of the work delivered by the systems administrators. Best practice is generally sought from PITO, and shared through training courses, but inconsistencies across the different Divisions remains the rule rather than the exception.

48. There is no standard method for the recording of work required and work delivered by the various systems administration staff. The majority of service requests are received directly from staff and are not routed through the helpdesk. Working practice in all other benchmarked police forces show a direct routing of calls through the help desk as this allows them to understand the nature of the work being carried out by their staff and thus proactively target frequently reoccurring problems. Calls are sometimes logged and recorded in personal data repositories local to the divisions, however this information is not shared between the systems administrators and is infrequently used for reporting or performance management centrally.
49. There appears to be a lack of consistency in the level of technical functionality being delivered by the various staff. The systems administration staff are considered to provide a service that the application support staff are overqualified to deliver. However, their roles and responsibilities are not always understood by the management and are often varied, leading to inconsistent methods of working. It has been noted that many of the systems administration staff are performing similar types of work for their differing systems (e.g. password resets), however there are no standards set as how to deliver such a service in the most efficient way. Having no clarity and a lack of standards in the roles performed by the systems administrators also results in differing demands on 3rd party external support.

Website and intranet administration

50. A systems administrator is employed to develop Bedfordshire's internet and intranet sites. Prior to the existence of this post, each department had been responsible for maintaining their own web pages and there was no consistent approach taken. The administrator currently works 30 hours a week, 6 hours per day. The role typically involves 60% development work and 40% maintenance work. The post also has some involvement in maintaining the Casualty Reduction website, although this responsibility will cease from January 2004. The post sits within the Corporate Services Department at headquarters and is line-managed by the Head of Corporate Services who is ultimately responsible to the Head of Business Management.
51. The force website is currently undergoing major redevelopment, through the contracting of an external company. The first phase was completed in April 2003 and the second phase is currently underway. Three areas of the intranet are also currently under development: transport services, video interviewing of witnesses and call handling. Diversity and occupation health intranet pages are also expected to start development in the near future.
52. The Bedfordshire internet and intranet force administrator does not record the number and level of calls coming in, but it is estimated that between ten and twenty calls per day are received and approximately twenty e-mails per day. These queries tend to be from a mix of internal staff and also from the public. The internet and intranet sites do not currently use any counting software to record the number of site visits and therefore have no way of analysing the popularity of the site i.e. monitoring the number of visits from the Bedfordshire area and the number of return visitors. The System Administrator is urged to incorporate a visit tag on the site to cater for this need.

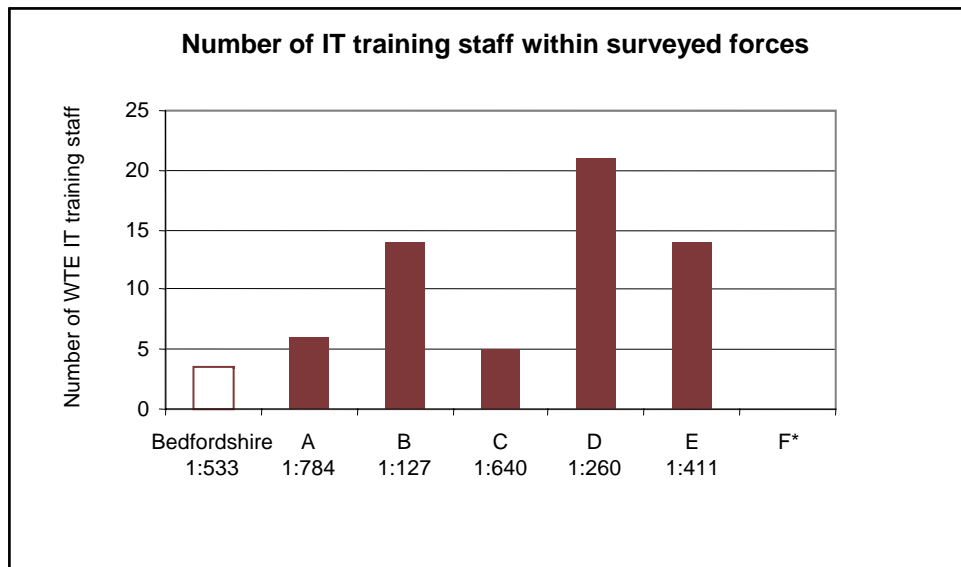
53. The Operation Scorpion website was set up two years ago with the initial purpose of helping the force meet the aims and objectives of the Five Year Crime Reduction Strategy. It is being used as a brand name for a range of crime reduction initiatives, but has been developed as a non-police specific website. The website is not produced in collaboration with any other organisations or forces. The current system administrator of the site was taken on one year after the website's inception and has developed it into its current format. It is estimated that 75% of the systems administrator's time is spent maintaining the website and 25% is spent on developments relating to the website. Funding for the systems administration position will cease from March 2004. During consultation one of the reasons given for the purpose of the Operation Scorpion website was that it would be much more user friendly, and less dry, "unlike the Bedfordshire police website".
54. The Operation Scorpion website is monitored on ad-hoc basis using 'Web Trends' software. The software is able to provide a variety of information about the new and repeat users visiting the site, although this is of little value if not analysed properly. The system administrator receives e-mail queries from the public and deals with a number of internal enquiries (neither are recorded).
55. The key issues identified during the review of these websites are that:
- overlap and duplication exists between the two sites in terms of content;
 - both sites are well designed but have evolved without clear, co-ordinated management and direction;
 - the two sites operate independently with little or no evidence of linkages / joint-working;
 - staff have similar skills and roles, yet there is no resilience;
 - complex and technical work for the Operation Scorpion website, the force website and the intranet is outsourced to external contractors;
 - both staff are utilising similar skills sets, graphic, basic HTML and content development; and
 - both administrators are self-taught and there seems no reason why they could not transfer their skills to provide some degree of resilience for each other.

56. We make the following recommendations in the area of systems administration:

- *the HR department should produce a clear, generic job description for systems administration staff across the force. This should set out the roles they are expected to play, competences and requirements for coordinating their work with colleagues across the force. The IT/Comms department should produce a set of protocols and guidance notes for systems administrators to follow when undertaking standard (non-system specific) procedures. The applications support team could usefully lead this process;*
- *systems administrators should continue to be line-managed from within their own divisions, but a 'dotted-line' management responsibility should be operated by the Head of IT/Comms. The Head of IT/Comms should ensure that centrally specified processes are followed properly and take a cross-organisational view of performance based on central monitoring of query logs;*
- *the Head of IT/Comms should be responsible for building a support network for the systems administration staff across the force – the purpose of which would be to ensure that good practice is shared effectively;*
- *senior officers across the force should satisfy themselves – in consultation with the Head of IT/Comms – that resilience arrangements are in place for each system for which they are responsible. This may be provided by other systems administrators trained to a given level of competence on a range of systems; and*
- *consideration should be given to merging the Operation Scorpion and Bedfordshire Police websites, or, if the sites remain separate, to coordinate the two systems under a single, central management.*

IT Training

57. The IT training function sits within the Training department and consists of 3 full time staff. Responsibility for this function currently lies with a part-time sergeant. The sergeant works on a rota, working three days one week, then one day the next week. Prior to this arrangement, the IT training function had a dedicated IT Training Manager, but a rationalisation of staff meant that this post was removed. We understand that the current sergeant has only limited IT training experience and specialises in police training issues such as illness and sick leave. The force has two classrooms that seat twelve people for the purpose of IT training.
58. The graph below demonstrates that Bedfordshire has the lowest number of IT training staff of all the benchmark forces surveyed.



F* - Force F did not provide the requested information

59. IT training provides in-house probationer training, training for all major IT systems such as OIS, PNC and CJS and self-taught packages. IT training does not provide classroom courses on basic skills such as Microsoft Power Point, Word and Excel – due to decreasing demand, these types of courses are provided electronically. Nor do IT training provide courses for smaller systems with a lower level of usage. External companies would be expected to deliver the initial training for smaller systems. If one off training is required, IT trainers are available to go out and provide bespoke one-to-one training. Self-taught courses are available on a limited number of stand-alone machines at divisions and within the force’s Resource Centre and some courses are available on the force network. All probationers have an IT skills assessment, however all serving officers and staff will not necessarily have received this training (depending on their length of service).
60. Staff within the department feel that their volume of work is high, simply because of the probationer training, with two full weeks of probationer training every five weeks. All other training is fitted around that. It is estimated by IT trainers that they spend approximately 90% of their time in the classroom. The view was expressed by all IT Trainers that they would all like more time to produce pre-course material and evaluate and improve existing courses.
61. A common view expressed during stakeholder interviews was that IT trainers have suitable facilities and well skilled staff, and that they are able to adequately meet the demand of their customers. The customer questionnaire results suggest IT trainers are perceived to be helpful and professional. The majority of customers found that courses were relevant, effective and that the service provided to them was consistent.²
62. However several concerns were expressed. These concerns related to:
- perceived difficulty in obtaining approval to undertake training;
 - the possible need for more basic IT training;
 - the facilities available for online learning;
 - communication between the training and IT departments.
63. We were told on several occasions that staff can experience difficulties getting approval from their managers to go on training courses. This appeared to be a particular issue in the IT/Comms department. A force senior commander commented that the force often invests massively in IT, but that they do not always link the training and development needs to that investment. We were told that balancing operational and training demands is not always easy.

² Appendix A, Section 6 (Pie charts 6A, 6B, 6C, 6D and 6E)

64. Some members of staff felt that more in-depth training in basic IT skills such as effective e-mail use is required. Data taken from the IT Helpdesk Sun Rise System indicates that there were 212 queries to the helpdesk regarding the use of e-mail.³ Another example given (at the project board meeting on the 25th April) was that a prompt for password changes created 300 calls to the helpdesk. It was suggested that a focus on basic IT training would reduce the volume of such simple calls to the helpdesk (see helpdesk section) and help staff to use systems to their full potential.
65. 90% of IT office skills are now taught through NCALT (National Centre for Applied Learning Technologies) which provides online learning solutions for the police. Staff are encouraged to use this facility. The service is free (funded centrally through the Home Office), however it is felt that the network is too slow which makes it difficult to access the system. Every station has a stand-alone computer that is dedicated to self-taught training courses. Concern was expressed that the force does not have enough resources to make the most of this hardware due to a lack of capability to use sound, video and other multi-media functions.
66. Communication was highlighted as another area for improvement. A number of staff suggested that major IT upgrades have taken place without the training implications being fully considered. The training department has not always been involved during the scoping stages of IT projects, but communication between the two departments has improved recently. The Head of Training, or a training representative, attends IT Project Board meetings, and tries to liaise with IT to ensure they can adequately plan for the training requirement of the force.

³ Appendix D, Table 1

67. Given this recent improvement, we do not consider that there would be any significant advantages in moving IT training into the IT department. In any event, to do so would be an unusual step judging from the structures in place in the comparator forces.

	Located in IT Department	Located in Training Department
Family of forces IT training Function	1	5 ⁴
Location of Bedfordshire IT training function		✓

68. Our recommendations in this area are as follows:

- *the IT training plan should be reviewed with a view to including more scope for basic IT training. This should help reduce calls to the helpdesk for simple queries;*
- *the force should consider further investment in its online training capability to allow this resource to be used to maximum effect.*

⁴ Force B reported that although the IT training function sits within the Training department, the IT training manager has a dotted line to the head of IT and sits on both the IT and Training management board meetings

Communications systems, equipment and radio maintenance

69. During stakeholder interviews the work conducted by communications staff was often praised. In addition, the staff survey resulted in extremely positive feedback where the rating for this service ranged from good to excellent. These findings were also supported by the 2002 ACPO survey. Therefore it should be noted that the issues identified in this section are not substantial.
70. There are three Communications Technicians who provide 24 hour cover in a shift pattern every 3 weeks. Standard working hours are 8am until 4.40pm. The communications technicians provide installation, maintenance and testing of all communications equipment force wide.
71. During consultation some dissatisfaction was expressed by the technicians about the wide range of tasks they were asked to carry out (communications, radios, computers, installation, maintenance and testing, car radios, radio network and communication centre) some of which were considered to be outside their job description.
72. The consultation also suggested that work could be better prioritised. There is no clear documented communications strategy, and as a result, there is some level of scope for the improvement of the level of inter-departmental communication, for example system changes.
73. The main issue in this area is the possible impact of the Airwave contract. Airwave will be managed by O2 and there should, therefore, be some scope for efficiencies in this area. In the short term however, we anticipate that communications staff will be required to carry out a number of transitional tasks and demand for their services is likely to continue to be high. The forces that we benchmarked against are also expecting a broadly neutral impact of Airwave on staffing for the next year at least.
74. Our recommendation in this area is, therefore:
- *to review the situation after the first six months of Airwave when the requirement for ongoing in-house communications support should be clearer.*

Telephony

75. No significant issues were raised in respect of telephony in either the baseline assessment or the main review. We make no recommendations in this area. It is worth noting that the Communications manager considers that work associated with office moves and refurbishments – including telephony work – accounts for some 70% of his staff's workload. This appears to reinforce the view that Airwave may not have a major impact on the demand for services in this area.

Summary of recommendations

76. In this, final section of the report, we summarise our recommendations, assess the potential costs and benefits of each and propose a timescale for implementation.

Strategic recommendation

1. The training department should be asked to produce (in consultation with the IT/Comms department) a clear IT training strategy. The strategy should consider the need for more basic IT training. The force should consider further investment in its online training capability.	
Costs – staff time, capital costs of investing in wider bandwidth, sound cards and other hardware.	Benefits – better use of helpdesk. More effective operation of systems. Savings from increasing online training provision as a proportion of overall training package.
Implementation: draft strategy to be produced by April 2004; action plan to be produced by July 2004.	

Management recommendations

2. The IT/Comms department should review the answering service, particularly the current menus, with a view to shortening the process. This exercise should involve some consultation with users (or representatives of users) in order to attract a greater level of understanding about the system.	
Costs – staff time.	Benefits – more user friendly service.
Implementation: by end February 2004.	
3. The IT/Comms department should further develop and promote alternative means for users to log their requests for help. The Sunrise call logging system has the functionality to allow users to log their calls on the intranet and track their progress. The completion of this process should be prioritised.	
Costs – staff time and costs of developing intranet (already budgeted for).	Benefits – alternative means of contacting helpdesk.
Implementation: By April 2004.	

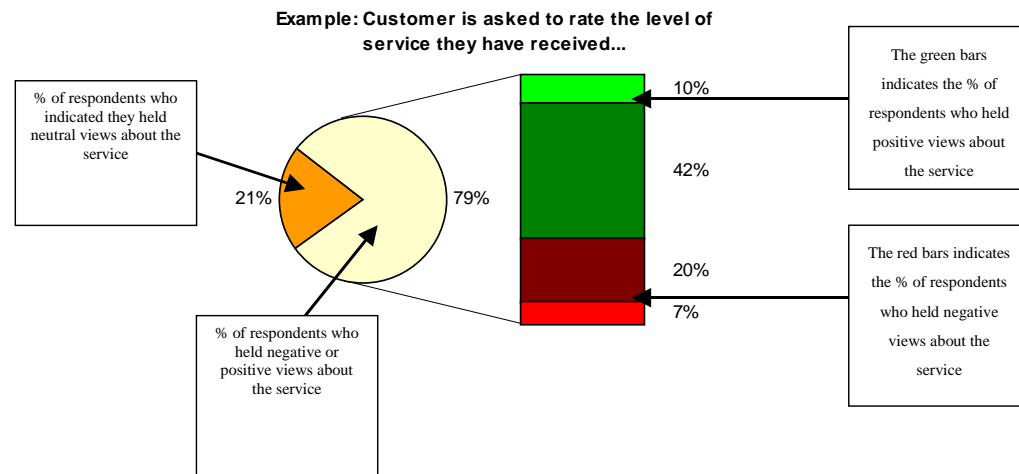
<p>4. Clear guidance or a protocol should be issued to staff on the helpdesk service – setting out what it should and should not be used for – and that this issue should be covered in the basic IT training received by new recruits and serving officers. The guidance should also give advice on peak usage times.</p>	
Costs – staff time.	Benefits – reduction in calls to helpdesk.
Implementation: By end February 2004.	
<p>5. Feedback received on support officers' performance on jobs should routinely be shared with the officer concerned – unless there are particular reasons why it should not (eg a disciplinary procedure is underway).</p>	
Costs – none.	Benefits – improved performance.
Implementation: immediately.	
<p>6. The existing system whereby the applications support team acts as a 'gateway' through which the purchase of any new systems is routed should be reinforced to ensure that small systems are not purchased without their approval.</p>	
Costs – none (marginal impact on staff time).	Benefits – more central control over purchase of systems. Job satisfaction improved for applications support team.
Implementation: January 2004.	

<p>7. A new approach to systems administration:</p> <ul style="list-style-type: none"> <i>the HR department should produce a clear, generic job description for systems administration staff across the force. This should set out the roles they are expected to play, competences and requirements for coordinating their work with colleagues;</i> <i>the IT/Comms department should also produce a set of protocols and guidance notes for systems administrators to follow when undertaking standard (non-system specific) procedures. The applications support team could usefully lead this process;</i> <i>systems administrators should continue to be line-managed from within their own divisions, but a 'dotted-line' management responsibility should be operated by the Head of IT/Comms. The Head of IT/Comms should ensure that centrally specified processes are followed properly and take a cross-organisational view of performance based on central monitoring of query logs;</i> <i>the Head of IT/Comms should be responsible for building a support network for the systems administration staff across the force – the purpose of which would be to ensure that good practice is shared effectively; and</i> <i>senior officers across the force should satisfy themselves – in consultation with the Head of IT/Comms – that resilience arrangements are in place for each system for which they are responsible. This may be provided by other systems administrators trained to a given level of competence on a range of systems.</i> 	
Costs – staff time.	Benefits – improved performance and resilience.
Implementation: by end February 2004.	
<p>8. Consideration should be given to merging the Operation Scorpion and Bedfordshire Police websites, or, if the sites remain separate, to coordinate the two systems under a single, central management.</p>	
Costs – none.	Benefits – cost efficiencies.
Implementation: On publication of report into Operation Scorpion in 2004.	
<p>9. Review the requirement for comms support after the first six months of Airwave when the requirement for ongoing in-house communications support should be clearer.</p>	
Costs – none.	Benefits – able to make a fully informed decision.
Implementation: July 2004.	

Appendix A: Results of internal customer questionnaire

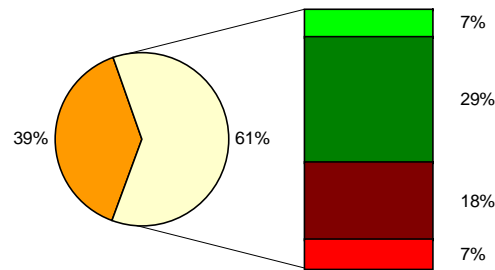
Five hundred questionnaires were sent out to randomly selected internal staff within the Bedfordshire Police Force. 203 questionnaires were returned. The questionnaires sent out addressed six key areas: Helpdesk, Technical Support, Applications Support, Communications staff, Systems Administration and IT Training. The questionnaire also asked for views on the overall performance of the IT department.

The pie chart and bar graph displayed demonstrates how we can view the rating of the service at a glance by respondents. The traffic light colouring of amber demonstrates that the views held are neutral whilst the red and green of the bar graph shows how many respondents held positive or neutral views about the service.

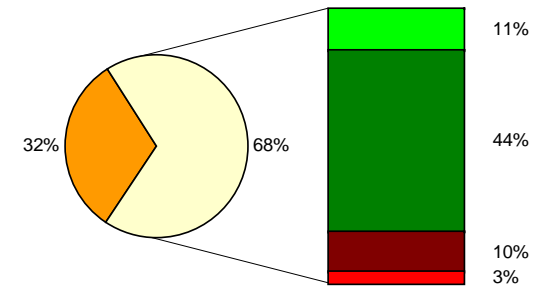


1. Helpdesk

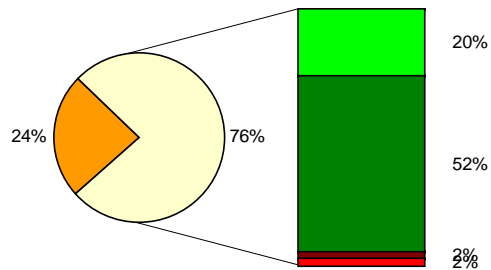
1A. The availability of helpdesk staff



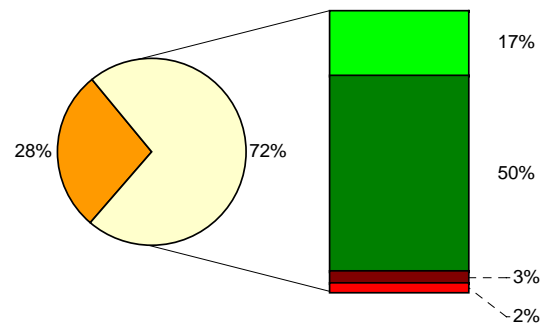
1B. The ability of helpdesk staff to resolve problems



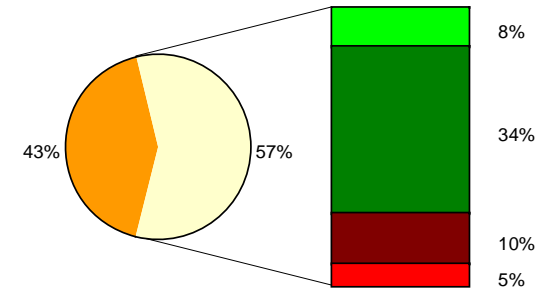
1C. The helpfulness of helpdesk staff



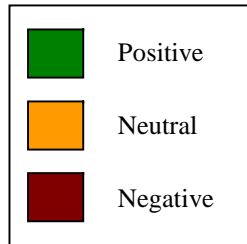
1D. The Professionalism of helpdesk staff



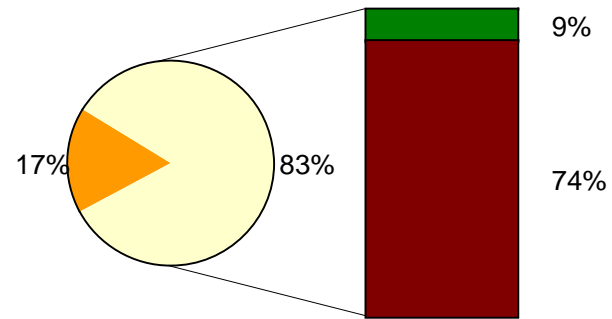
1E. Consistency of service from helpdesk staff



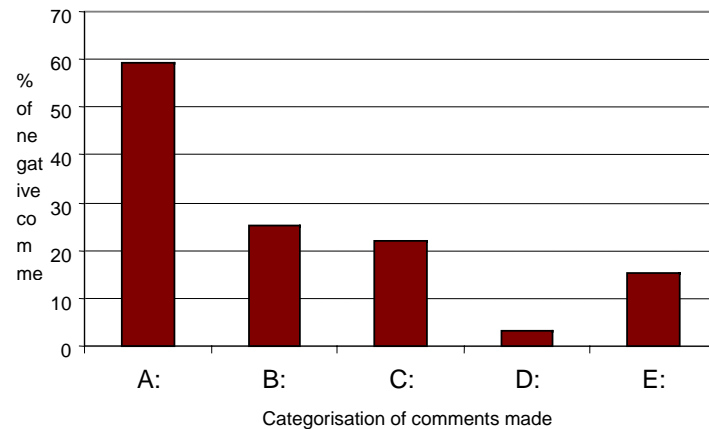
91 comments were made about the helpdesk



1F. Analysis of comments regarding the helpdesk answering menu



1G. Analysis of the negative comments made about the helpdesk / answering service (% of comments by category)



A: Message is too long winded / it takes too long to go through the choices / it is a waste of time

B: It still always goes to the answer phone / still don't get to speak to anyone / no one calls back

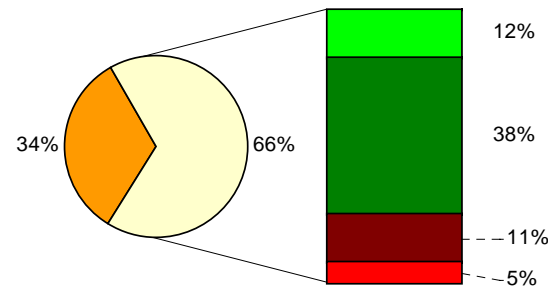
C: Would prefer to speak to a human / it is too impersonal

D: It still doesn't resolve the issue of out of hours cover

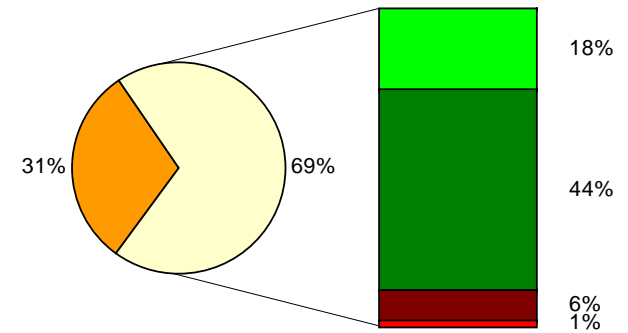
E: Other comments

2. Technical Support

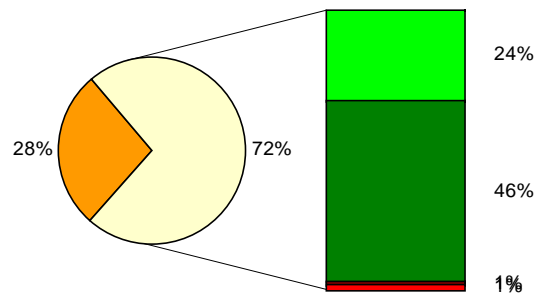
2A. Time taken to resolve problem by technical support



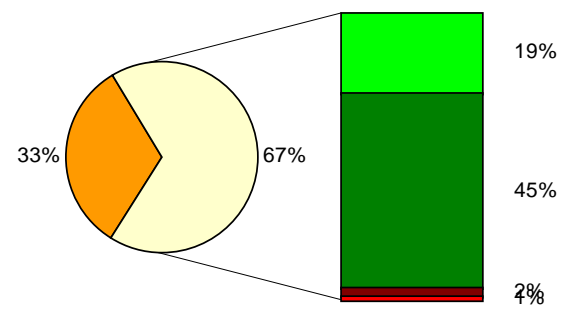
2B. Ability of technical support to resolve problem



2C. Helpfulness of technical support staff

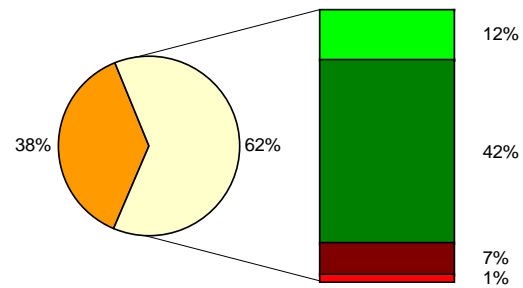


2D. Professionalism of technical support staff

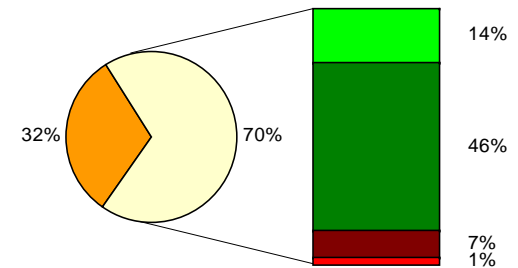


3. Applications Support

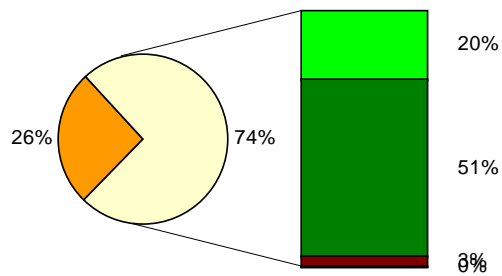
3A. Time taken by application support to resolve problem



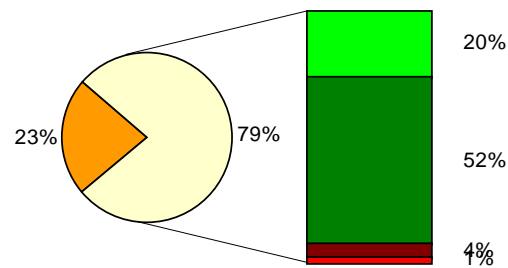
3B. Ability of application support to resolve problem



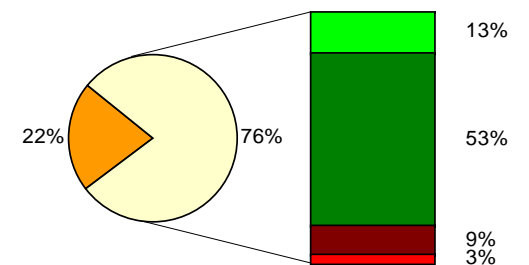
3C. Helpfulness of application support staff



3D. Professionalism of application support staff

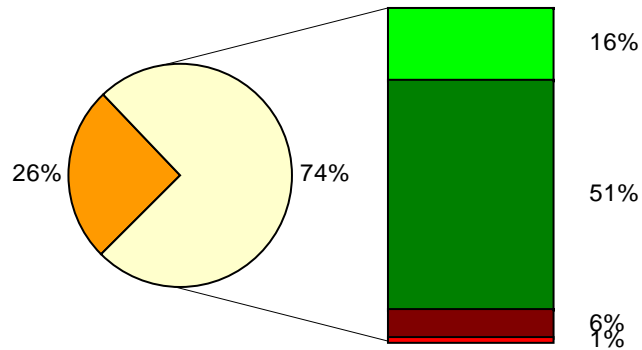


3E. Consistency of service from application support

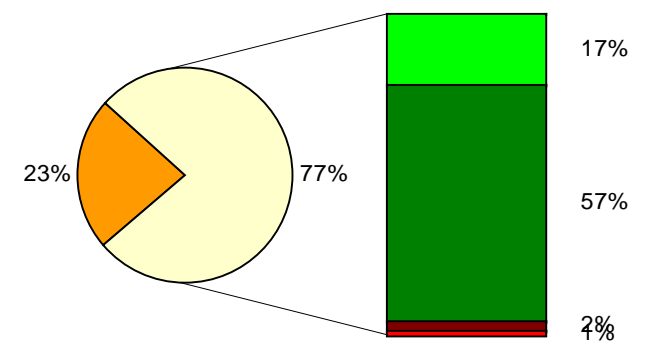


4. Communications

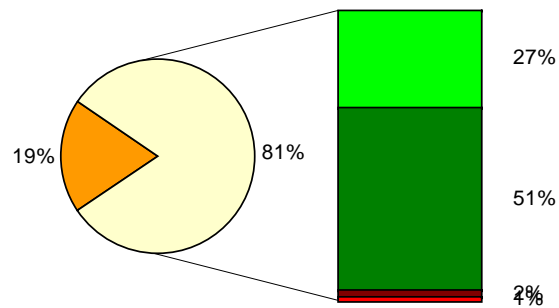
4A. Time taken by Communications to resolve problem



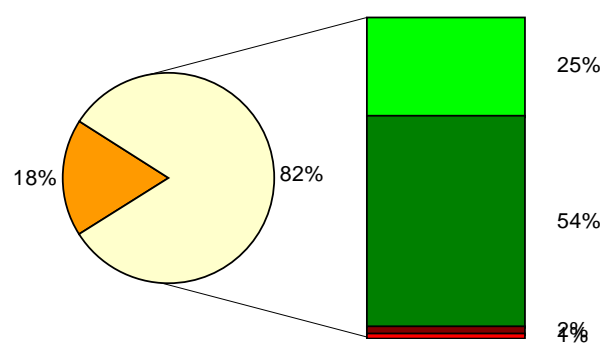
4B. Ability of Communications to resolve problem



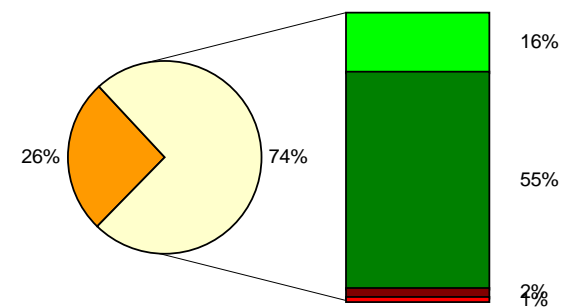
4C. Helpfulness of Communications staff



4D. Professionalism of communications staff

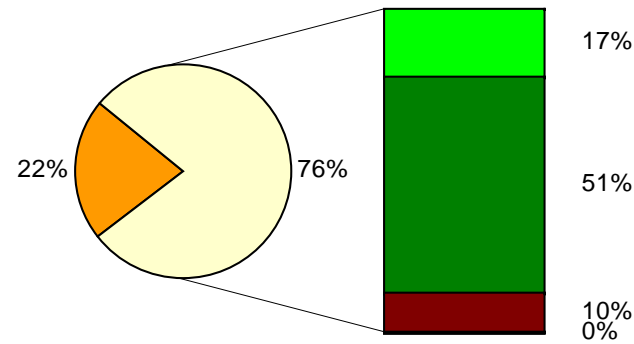


4E. Consistency of service from Communications

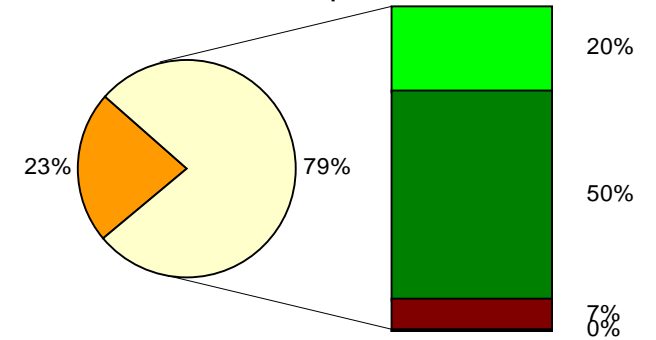


5. Systems Administration

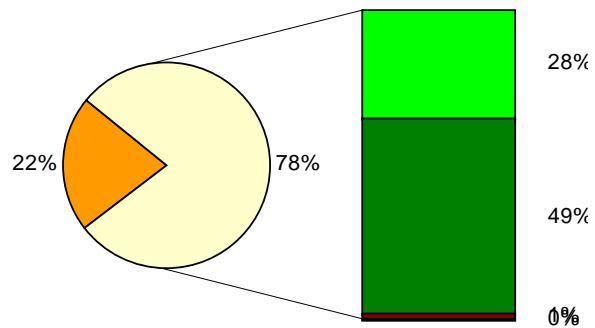
5A. Time taken by systems administration staff to resolve problem



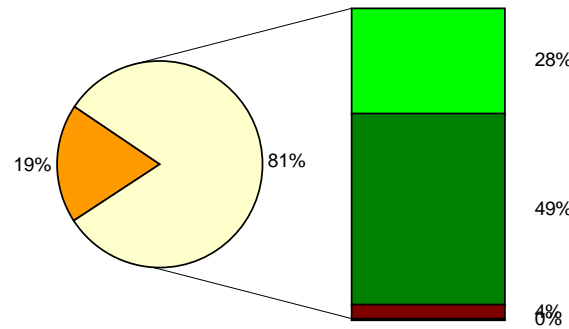
5B. Ability of systems administration staff to resolve problem



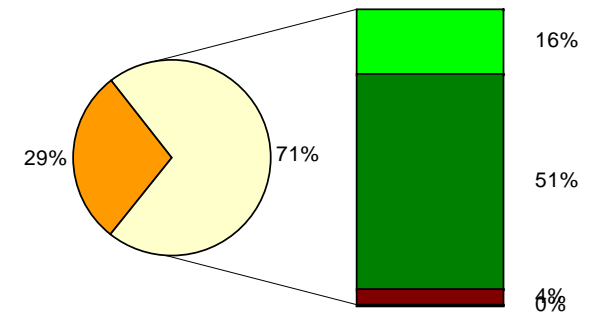
5C. Helpfulness of systems administration staff



5D. Professionalism of systems administration staff

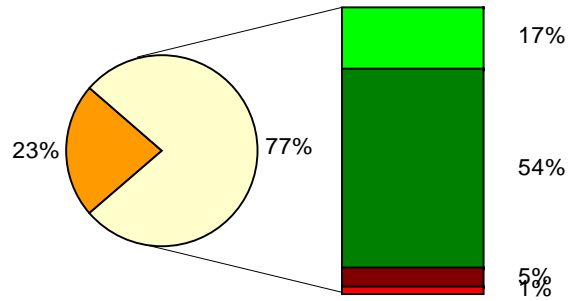


5E. Consistency of service from systems administration staff

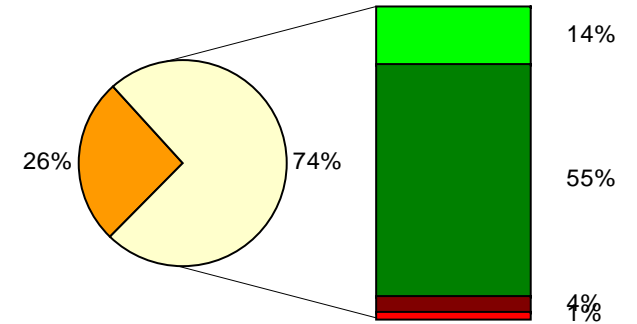


6. IT Training

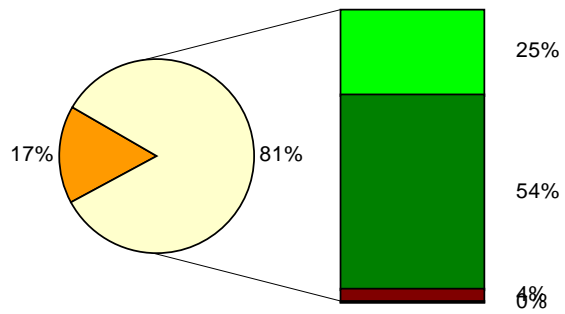
6A. Relevance of courses on offer



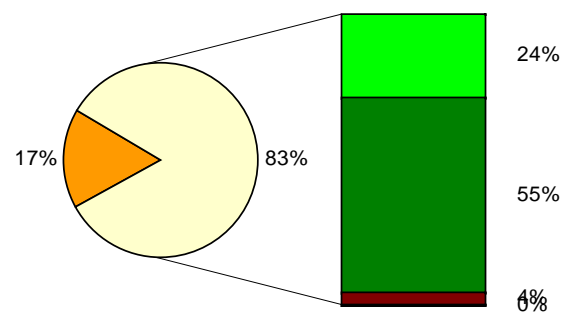
6B. Effectiveness of IT training



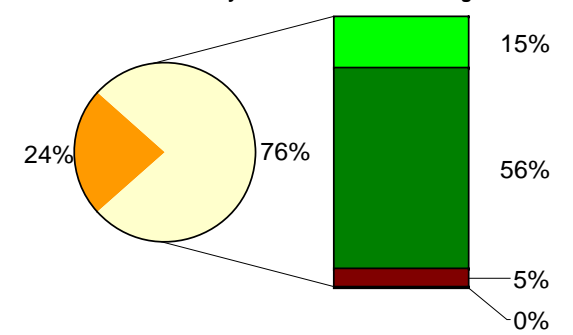
6C. Helpfulness of IT Training staff



6D. Professionalism of IT training staff

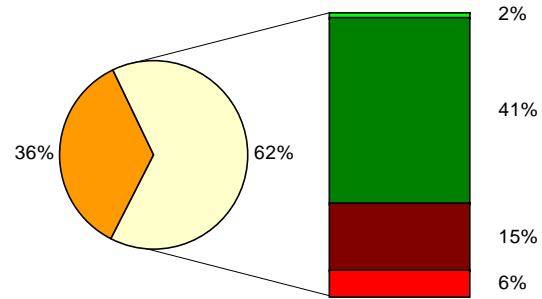


6E. Consistency of service from IT training

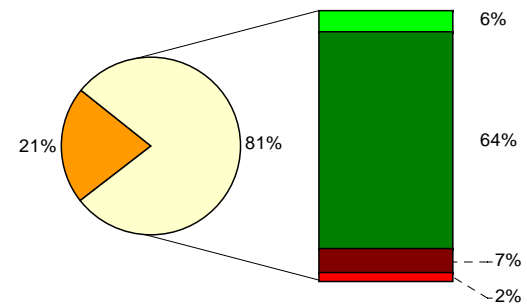


7. IT/COMMS Department

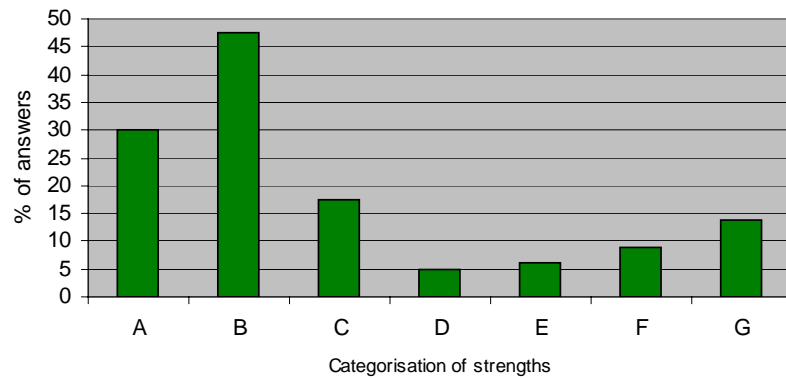
7A. The IT department provides a high standard of service to the force



7B. The IT department provide appropriate communication about current known problems and disruptions to services

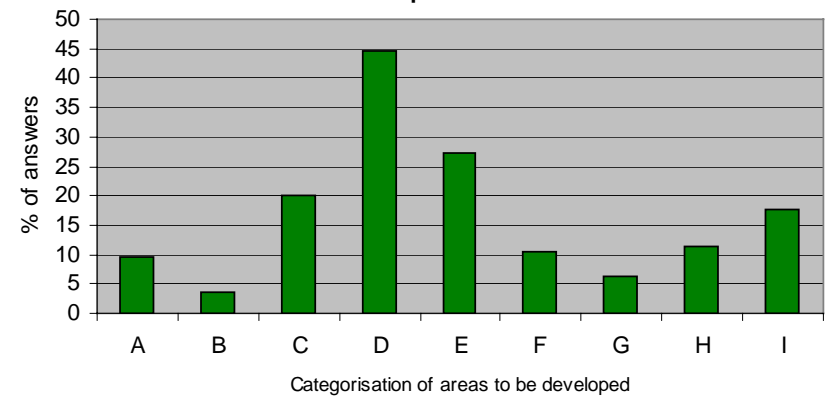


7C. Areas that the customers rate as strengths of the IT/IS department



- A: Knowledge/expertise/ability/competency
- B: Friendly/helpful/approachable
- C: Speed of resolution/availability of staff
- D: Leadership
- E: Doing the best with limited resources/staff
- F: Accessibility / in-house
- G: Other

7D. Areas that customers would like to see developed in the IT/IS department



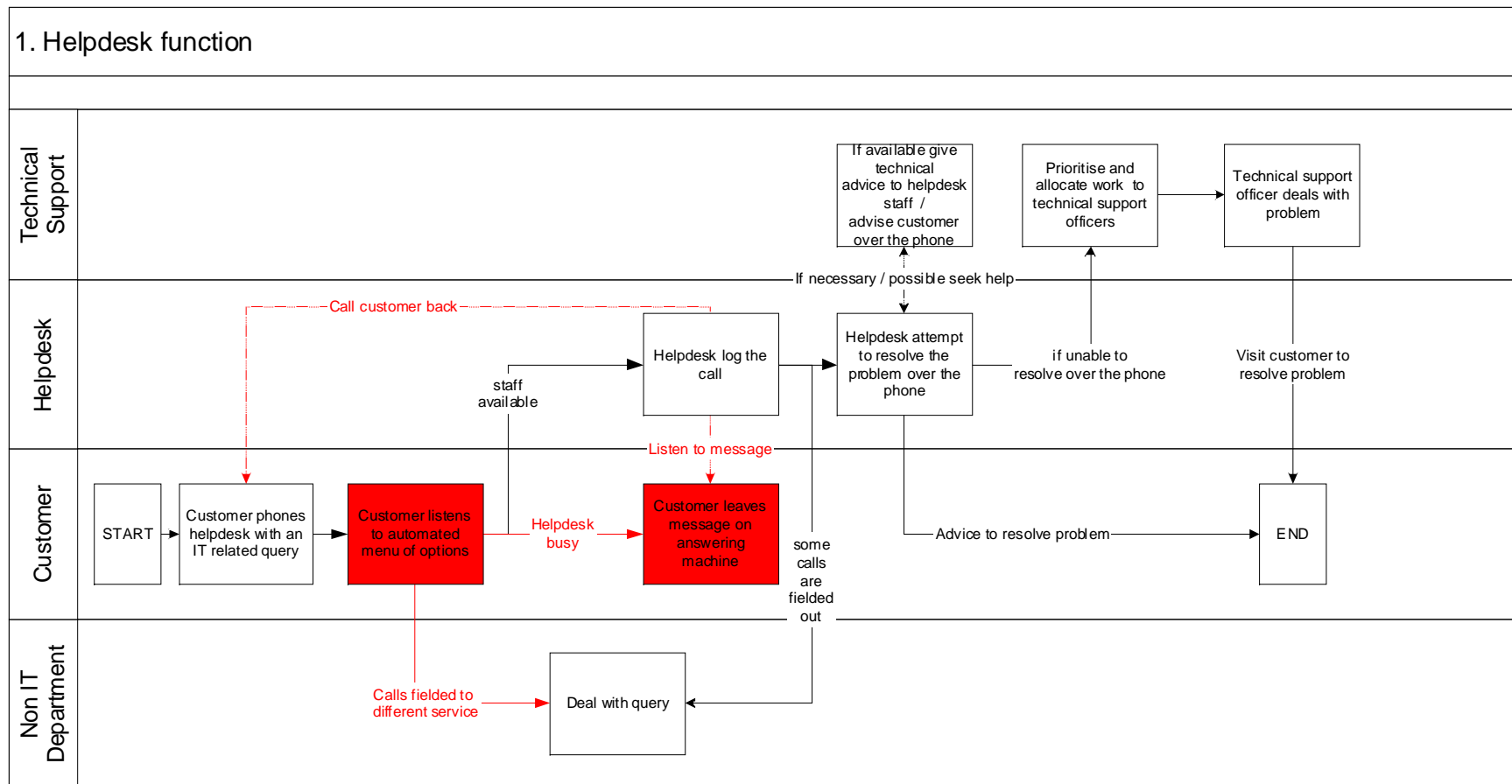
- A: Knowledge/expertise/ability/competency
- B: Unfriendly/unhelpful/unapproachable
- C: Speed of resolution / availability of staff
- D: Helpdesk/answering message
- E: Lack of integrated systems/want just one entry/too many passwords
- F: Lack of training
- G: Small size of department / number of staff
- H: Other - suggestion specific to user
- I: Other

Appendix B: Table demonstrating the number of internal and external training days for helpdesk, technical support and application support staff

	Number of training days in 2002	Number of training days this year (Jan '03 – Nov'03)
Helpdesk		
Helpdesk Analyst 1	1 day internal training (overview of dial in, firewall and e-mail with Technical Officer)	Informal training (on the job training days with technical officers)
Helpdesk Analyst 2		Estimated 2 days informal training (on the job training days with technical officers)
Applications Support		
Applications Support Manager		
Analyst Programmer 1	1 day @ Maidenhead, Business Objects designer course	0 training days
Analyst Programmer 2	4 days training – Hands on Crystal Reports (Learning Tree)	5 days training Windows NT4 (Learning Tree)
Analyst Programmer 3	5 days Marimba development	3 days IT service management (ITIL)
Technical Support		
Technical Support Manager	5 days training (Cisco) networking course)	2 days training (Cisco routing course)
Senior Technical Support Officer / Helpdesk Supervisor	5 days training (Cisco networking course)	2 days training (KVS email archiving course)
Senior Technical Support Officer 1	5 days training (Cisco networking course)	2 days KVS e-mail archiving course, 2days Cisco routing course

	Number of training days in 2002	Number of training days this year (Jan '03 – Nov'03)
Technical Support Officer 2		
Technical Support Officer 3		3 days UNIX course
Technical Support Officer 4		
Technical Support Officer 5		3 days UNIX course

Appendix C: Current Helpdesk Process



Appendix D: Helpdesk statistics (October 2003)

1. Breakdown of type of calls dealt with by IT helpdesk & Support in October 2003

Type of Call	Count	Type of Call	Count	Type of Call	Count
1. NT Admin General	249	14. Local Printer	24	27. Computer Install	7
2. Email - Internal	212	15. Lan Problems	23	28. Mouse	6
3. Profile	120	16. NT Server Hardware	20	29. DMS	6
4. Password	80	17. Multimedia software	17	30. NT Server Software	5
5. Email - External	78	18. Proxy Server	16	31. XP	5
6. Harddrive	78	19. Excel	16		
7. Network Printer	64	20. Intranet	16		
8. Email - Blocked	38	21. Laptop	15		
9. Monitor	33	22. PNC	14		
10. Other	32	23. Keyboard	11		
11. Setup User	28	24. Network General	9		
12. NT Desktop OS	28	25. Computer Build	8		
13. OIS	26	26. Word	8		

All types of calls that occur less than five times have not been included in this breakdown

2. Telephone resolution		3. Detailed study of telephone resolution	
Type of resolution	Count	Role and initials of person providing resolution	Count
Telephone	581	Helpdesk Operator 1	376
Visit	486	Helpdesk Operator 2	64
Fixed	198	Helpdesk Operator 3	61
New Entry	30	Engineer	31
E-mail	12	Technical Support Manager	16
Solution Given	6	Engineer	13
Replacement	2	Senior Engineer	8
3 rd Party	1	Engineer	6
		Engineer	5
		Administrator	1
N.B. A further 55 calls could have been resolved by helpdesk operators rather than engineers			

©2003 PricewaterhouseCoopers LLP. All rights reserved.
*PricewaterhouseCoopers refers to the United Kingdom firm of
PricewaterhouseCoopers LLP (a limited liability partnership) and other
member firms of PricewaterhouseCoopers International Limited, each of
which is a separate and independent legal entity.*