



A Study of a U.K. Police Call Centre

Steve Clarke
University of Luton Business School
Park Square
Luton LU1 3JU
England
Tel: +44 (0)1582 734111
Email: Steve.Clarke@Luton.ac.uk

Brian Lehaney
University of Coventry-School of MIS
Priory Street
Coventry CV1 5FB
England
Tel: +44 (0)24 7688 8567
Email: B.Lehaney@coventry.ac.uk

Huw Evans
University of Luton Business School
Park Square
Luton LU1 3JU
England
Email: huwdevans@tiscali.co.uk

ABSTRACT

This paper reports on consultancy carried out by the authors into the handling of emergency and non-emergency calls from the public by one of the forty-three police forces in England. The key outcome was a series of findings which pointed to police call handling being affected more by human than by technological issues. These findings were presented to the Barfordshire Chief Constable (head of the Barfordshire police force) as a list of clear actions to be undertaken, and have been accepted as key to the effective performance of the Barfordshire Police Call Centre.

INTRODUCTION

As this was a consultancy as opposed to a research exercise, we have chosen to adopt a business rather than an academic style for the main part of the paper and presentation. However, the intervention would not have taken the course it did had it not been informed by learning, both empirical and theoretical, from the broad domain of management. This learning, and the sources from which it is drawn, is reflected upon and detailed in the final conclusions and bibliography sections.

There are forty-three police forces in England, all of which operate under National Government control and report to the Home Office. Within each force, smaller groups known as divisions may contain up to 250 officers. Each division manages a few police stations, each of which has up to 50 officers working in it. Although all police forces are governed by the same statutory regulations, each has a great deal of autonomy as to policing operations and internal management. One such police force, Barfordshire (a pseudonym), is medium-sized, with around 1200 police officers.

Prior to April 2000, Barfordshire Police operated a Force Information Room (FIR) which received and allocated all emergency (999) calls, managed the radio channels for all divisions in Barfordshire, and despatched resources to incidents. The FIR did not deal with non-emergency calls. In April 2000, a new state-of-the-art Information and Call Centre was opened at the Headquarters building. The key change as a result of this was the routing of almost all telephone calls to the Call Centre, rather than to individual divisional police stations.

The Call Centre appeared to operate efficiently, with advice of call handling ergonomists and the outcomes of a simulation exercise being taken into account in enhancing operational procedures during the previous year. However, there were still concerns regarding the overall effectiveness of the operation, based, for example, on feedback from the public subsequent to the changeover. A key aim of this consultancy was to address this overall effectiveness, and make recommendations as to how to proceed. Specific objectives were to:

- Review the Call Centre, with particular reference to cultural, systems, and management issues.
- Prepare a report on the overall operation of the Call Centre.
- Suggest actions for improvement.
- Propose a schedule for progressing the issues.

THE STUDY

Documentation Review

The study began with a documentation review: there was a significant history in relation to the Call Centre development, and this had to be understood in order to proceed with the current activity. The key documentation reviewed was a Call Handling Strategy Document, a Call Handling Centre Implementation Project Document, and a selection of other documentation. This appears initially to have been driven by technological considerations in many cases, though, from the Call Handling Strategy Document, it appears that at a strategic level the objectives display a wider remit than at the operational or implementation level. For example:

1. Reduction of lost calls to a measurable minimum.
2. Increase in public satisfaction with the resolution of calls.
3. Increase the number of calls resolved at first and second point of contact.
4. Faster call answering times.
5. Improved effectiveness and efficiency in handling messages for staff.
6. Reduced direct revenue budget year on year costs of Call Handling process.

These objectives demonstrate, implicitly if not explicitly, a commitment to issues that include substantial non technological factors (for example items 2 and 5 above). It is precisely in respect of these non technological factors that concerns arose which gave rise to this consultancy. Importantly, whilst faster call answering times might be *technologically* achievable at present, the *quality* of call answering is seen as a potential area for improvement.

Activities listed in the Call Handling Centre Implementation Project Document included:

1. Conduct research into call handling activity within Barfordshire Police, using simulation techniques to enable the implementation to be based on a staffing model in line with the structural model.
2. Verify that job analysis and training needs analysis are undertaken and assessment criteria are developed to ensure correct staffing capability is provided.
3. Ensure that the people elements of the project are managed with sensitivity, professionalism and within legal constraints.
4. Evaluate all activities and processes to be conducted within the Call Centre and formulate activity flows, policies and user system design requirements.
5. Examine and monitor all elements of the material means provision, to ensure that the correct facilities are available to the call handling process prior to implementation date.
6. Ensure that the necessary capability exists to continue those activities that will not be conducted within the new Call Centre.

Of these activities, those which did not rely wholly on effective implementation of technology seemed to be giving rise to the greatest

problems. Generally, the other documentation relating to the project was very inwardly focused, and concentrated on call handling *functionality*, rather than the *needs* that the Call Centre has to address, the latter being taken as effectively agreed. However, this conflicted with the evidence “on the ground”, which had the primary task of satisfying public demand for services. The ‘problem’ which gave rise to the project – the perceived poor quality of public service and the opportunity to improve this by a more centralised system - seemed to have been lost in a drive for a technological solution. The overall impression was of documentation which focuses predominantly on technology, and this set the scene for the action research stage of the consultancy.

Action Research

Following the review of documentation, action research was conducted, consisting of: shadowing Call Centre and divisional operations; participative sessions with Call Centre staff; and a visit to another police force. Once a picture of the implementation had been gained from the documentation, the next stage was to carry out primary research into Call Centre activity through those participating in that activity. Initially, to gain an improved understanding of the Call Centre, a decision was taken to shadow all of the operations within it. Shadowing encompassed management and operations for: switchboard, call handling, despatch, and radio support. Generally, the impression was of a professional, well managed operation, but there were nevertheless management and operational issues which, if addressed, would improve overall effectiveness.

At the time of our visit, the switchboard was very busy, and was a bottleneck, causing delays in routing calls to call handlers. Given its critical nature in addressing client perceptions, it was necessary to ensure:

- The switchboard was being adequately manned at all times. There were times, for instance, when the switchboard was not manned, all calls going to call handling direct, and if the lines were busy, the caller heard a recorded ‘in queue’ message.
- Other staff in the Centre were available for switchboard duty when the latter was overloaded.

Part of the call handling function, usually consisting of two call handlers, was dedicated to answering emergency (999) calls, giving rise to some ‘idle time’. However, dispatchers and supervisors were able to pick up 999 calls through the telephone system, and on the shifts which we observed, doing so enabled the number of call handlers dedicated to 999 calls to be reduced to one. In practice, the extent to which this was done seemed to vary from shift to shift. At the time of our visit, most 999 calls which were not picked up by the dedicated call handling agents seemed to be taken by the Duty Inspector. The implication here was that, with closer attention to call volumes versus staffing, efficiency could be improved.

Radio despatch received calls through the IT system, with each dispatcher managing an ongoing list of open incidents. Where there were issues which were seen to go beyond ‘normal’ radio despatch activities, calls were passed to radio support. This activity, being the primary point of communication between the Call Centre and the Divisional Resource, seemed to be where the greatest benefit was to be derived in terms of improved Call Centre effectiveness. For example:

- The caller may have been promised something which cannot be delivered.
- Allocation of resource is constrained by availability.
- The radio system is ‘not always reliable’.
- Whilst jobs are allocated from the Call Centre, some tasks which used to be based at Division have not been taken over by the Centre (e.g. keyholder and alarm files): so they are falling into a “black hole”.
- Open incident logs seem to stay open for too long, leaving important issues not fully resolved and adding to ongoing workloads and lack of public satisfaction.

Demand was very unpredictable, but work rotas seemed to lack the flexibility to address this adequately. Partly, this might be seen as a multi-skilling issue, but also the possibility of not all staff having fixed hours, with some degree of ‘on-call’ work might be considered. Interestingly, there seemed to be no insurmountable issues related to unions or the customs and practices adopted which would prevent more flexible working arrangements.

The Call Handling Design Document made reference to multi-skilling only of Call Handling Agents, so that in practice most tasks were performed by specialists concentrating on a given function, and this exacerbated the bottlenecks caused by fluctuating demand. The reason for functions other than Call Handling Agents being excluded from multi-skilling was not clear; for example, the switchboard was arguably the one area which would most benefit from such an arrangement. Prior to the introduction of the Call Centre, the system was that:

- The Force Information Room (FIR) at Barford (the County town, and one of the largest police divisions, in Barfordshire) controlled all radio channels.
- FIR at Barford controlled all 999 calls.
- FIR at Barford despatched resources.
- Non emergency calls went to divisions.

Under the Call Centre arrangements, non emergency calls were received centrally, and resources despatched accordingly. Notwithstanding this change, the Division remained as the ‘public face’ of the Police in a given area, but much of the ability to deal with public demand rested with the Call Centre and its associated organisational procedures. This gave rise to a number of perceived issues to be addressed, examples of which are listed below.

1. Public frustration: the caller wants a timely response, both on the telephone and in terms of police action.
2. Divisions have lost staff and resource to the Centre, but are still left with part of the problem.
3. Whilst there is no argument in principle with a centralised call handling system, the loss of *information* at divisions is problematic.
4. Divisions still ‘own’ the job, but have no *divisional* location for taking and managing calls.
5. Some calls taken at the Call Centre, either due to error or incorrect information, are incorrectly allocated.

Whilst the above were examples of perceived problems, the key issue here was not *what* these perceived problems were, but that there were issues still unresolved. It was an important outcome of this report that investigation of these issues was clearly necessary. This work built on the understanding gained in the documentation review, and cemented the view that much was to be gained by a deeper investigation of call handling through those most closely involved with it. As a result, a number of participative sessions were undertaken, of which the brainstorming event detailed below is an example.

Call Handling Centre (CHC) Participative Session

This took the form of a brainstorming session with Call Centre staff. There were eleven attendees. A Chair and Note Taker were elected from the attendees. The problem to be addressed, as determined and agreed by participants, was stated as:

‘The issues to be considered for effective co-ordination of control activities’

The central issue to be addressed, as determined and agreed by participants was:

‘How can management of responses be better facilitated by the command and control system?’

One of the aims of the session (de Bono 1977) was to produce three lists of potential actions:

- Ideas of immediate usefulness.

- Areas for further exploration.
- Any new approaches to the problem.

These lists would be evaluated later by the group, and other groups within the Force. For space reasons, only a summary of the immediately useful list is reproduced below.

- **Participation:**
Continuous improvement through involvement – user groups set up to discuss and resolve issues of concern. Allow for more participation in change decisions.
- **Communications:**
Address the ‘black hole’ that exists in communication between the Call Centre and Divisions.
The information passed between all groups needs to be investigated and improved.
- **HRM:**
Address ‘them and us’ issues between Divisions and Call Centre.
- **Resources:**
Officer numbers on divisions and at Call Centre, available for tasks, and also their timely updating of availability.
- **Training of CHC staff:**
Training generally considered as poor.
- **Management and leadership issues in CHC:**
Allow for more participation in change decisions.
Evaluation of the processes by which incidents are managed.

Finally, to further verify the outcomes of the study, it was decided to visit another force facing similar issues.

VISIT TO WEST MIDLANDS POLICE

The purpose of this visit was to begin the process of understanding how other police forces have addressed the problem of call handling. West Midlands Police were seen to have some similarities with Barfordshire, since they are in the process of reorganising both emergency and non-emergency call handling.

The West Midlands 999 Centre handles an average of 1600 emergency calls per day, and has the task of answering the calls, and passing the tasks to Operational Control Units (OCUs). There are twenty-one OCUs, each of which has 4-6 sector stations within its control, and which in total have 7500 officers. All resourcing and management of incidents is carried out by OCUs.

Prior to the November 2000 changes, all non-emergency calls went to divisions, from where they were allocated to OCUs, which were then sub-divisional level. Emergency calls (999) were dealt with by a central control room (the ‘Force Control Room’). These calls were logged and passed to Division, who controlled the incident from that point on. Under the new system, central call handling was introduced whereby 999 calls are logged and passed to Operational Control Units (OCUs) via the IT system, from where the resources are allocated: in other words, similar to Barfordshire, Divisions were being marginalised in the new process. There was, under this system, the growing conviction that incidents were not managed effectively, with OCUs seen to be taking calls and ‘dumping’ them on officers.

This new system is giving rise to a number of issues, currently under review, including:

- Poor local knowledge of the call takers.
- ‘Inadequate’ call distribution: call takers seem to prioritise getting rid of the calls.
- Callers complaining that they cannot get through on the phone.
- The resource problem appears to be still evident.
- A quality ‘first line’ response, both from the Call Centre and on the

ground is needed, together with the flexibility to deal with ongoing unpredictability of demand: the Call Centre approach is failing to deliver this.

The outcomes from the West Midlands investigation were then combined with outcomes from the Barfordshire study, to produce an overall picture of the issues to be addressed in Barfordshire.

BARFORDSHIRE FINDINGS

The original Call Handling Strategy document referred to non-technical issues (for example customer satisfaction) which affect the *quality* of call handling. This was largely lost in the implementation of the call handling project, which placed increasing emphasis on technical factors. The evidence of this study strongly suggested that these quality issues should be revisited. Specific areas identified as needing attention are detailed below.

- There were bottlenecks in the Call Centre (the switchboard seemed frequently to fall into this category). Largely this seems attributable to unpredictable demand, which called for a flexibility in work patterns beyond that which was practised. Some degree of multi-skilling was indicated in early specification documents, but its implementation was not widely apparent.
- There was a view that the technology and structure of the Call Centre could be improved.
- Training was seen to be an area of weakness. A review of training needs and assessment of training programmes was indicated.
- The link from Despatch/Radio Support to Divisions was ‘not always reliable’ - examples of problem issues are given below.
 - Communications and operations between Call Centre and Divisions needed to be reappraised. There was a perception of a ‘black hole’, into which were falling the tasks which used to be carried out by Division, but which were seen to be call handling operations. All of these had not been picked up by the Call Centre, and perhaps did not even belong there.
 - There was an overall impression of a ‘them and us’ culture, with Call Centre and Division passing blame whilst tasks were left undone.
 - A lack of ‘ownership of incidents’. Divisions seemed the logical place for this, and they appeared willing to take on the task, but saw themselves as lacking the necessary information to do so.
 - Public frustration was evident in the complaints received, and in feedback from the visits made. A similar problem existed at West Midlands, and was proving equally difficult to resolve.
 - Divisions had no ‘location’ from which to manage incidents.
- **Participation:**
Operational staff felt that they had information to offer which would improve the situation, but that this was not taken into account. Their desire to enhance the performance of call handling was clearly evident, and more use should have been made of this.
- **Resources:**
Allocation to incidents was resource constrained, both at the Call Centre and ‘on the ground’. The monitoring of effectiveness versus resource at the Call Centre and Divisional levels was an ongoing requirement.
- **Management:**
 - It seemed no longer clear what the management process was or, perhaps even worse, should be.
 - Within this process, whilst the current *technical* operation of call handling was accepted as ‘here to stay’, there was a clear need to give more ‘control’ to Divisions.
- **Public perceptions:**
 - Call handling needed to address public expectations.
 - ‘Local’ knowledge had been lost in the move to centralised call handling.

These findings were used to provide an Action Plan for the Call Centre, which is currently being implemented.

CONCLUSIONS

This work was undertaken as consultancy activity by the authors of this report, and has been reported in those terms. However, it is interesting to note that the original perception which dominated the implementation of the Call Centre was predominantly instrumental or technological. That this consultancy surfaced and applied solutions from a more human-centred perspective was not part of an intentional research ethos or academic thrust, but rather was to do with the context of the problem situation. Very early in the intervention it became clear that, not only was an over technical view of the issues insufficient, but that it was getting in the way of understanding and resolving problems which continued to surface despite numerous technical fixes. Key to gaining this understanding was a more participative view of the problem context, and the use of participative methodologies to address this. The

space allowed for this paper does not permit complete analysis of all the issues raised here, but the short bibliography at the end gives some idea of the empirical and theoretical evidence used within the study.

REFERENCES AND BIBLIOGRAPHY

- Ackoff, R. L. (1971). "Towards a System of Systems Concepts." *Management Science* **17**(11).
- Clarke, S. (2001). *Mixing Methods for Organisational Intervention: Background and Current Status. Mixed-Mode Modelling: Mixing Methodologies for Organisational Intervention*. M. G. Nicholls, S. Clarke and B. Lehaney. Dordrecht, Netherlands, Kluwer Academic: 1-18.
- de Bono, E. (1977). *Lateral Thinking*. Aylesbury, U.K., Pelican Books, Hazell Watson & Viney Ltd.

0 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/proceeding-paper/study-police-call-centre/31991

Related Content

Applying Social Network Theory to the Effects of Information Technology Implementation

Qun Wu, Jiming Wu and Juan Ling (2009). *Handbook of Research on Contemporary Theoretical Models in Information Systems* (pp. 325-335).

www.irma-international.org/chapter/applying-social-network-theory-effects/35838

Factors Contributing to the Effectiveness of Online Students and Instructors

Michelle Kilburn, Martha Henckell and David Starrett (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 1451-1462).

www.irma-international.org/chapter/factors-contributing-to-the-effectiveness-of-online-students-and-instructors/183860

NLS: A Reflection Support System for Increased Inter-Regional Security

V. Asproth, K. Ekker, S. C. Holmberg and A. Håkansson (2014). *International Journal of Information Technologies and Systems Approach* (pp. 61-82).

www.irma-international.org/article/nls/117868

Computer Network Information Security and Protection Strategy Based on Big Data Environment

Min Jin (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-14).

www.irma-international.org/article/computer-network-information-security-and-protection-strategy-based-on-big-data-environment/319722

Change Management: The Need for a Systems Approach

Harry Kogetsidis (2013). *International Journal of Information Technologies and Systems Approach* (pp. 1-12).

www.irma-international.org/article/change-management/78903