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Des McKibbin

Effective management of major incidents in call centres

Introduction

December 2010 was the coldest in Northern Ireland for over 100 years, with many places experiencing sub-zero temperatures continuously for over seven days. A prolonged cold spell in late December, followed by a rapid thaw from 26 to 27 December lead to 215,000 households across Northern Ireland having their water supplies interrupted.¹

During and after the event NI Water came under criticism for its communication with consumers; particularly in terms of their website and call centres, which were unable to cope with the demand leaving consumers without, not only water supply but also up to date and accurate information that would allow them to deal with the situation. The purpose of this paper is to:

- Draw on key reports in order to examine where NI Water's communication with customers was deficient; and
- Identify what best practice measures could be implemented to mitigate the impact of any future major incidents.

¹ Mr. L. Mulholland (NI Water) giving evidence to the Committee for Regional Development (6th Jan 2011) see: <http://nia1.me/9y>

Investigating the Freeze/Thaw event

Investigations were carried out by two statutory organisations: The Utility Regulator (UREGNI) and the Consumer Council for Northern Ireland (CCNI). These investigations resulted in the publication of two reports that were extremely critical of NI Water's preparedness for the event, as well as their management of it when it escalated.²³ Both reports examined NI Water's performance with regards to its call centre, attributing the problems which arose to:

- Lack of forward/contingency planning;
- Insufficient staffing levels;
- Failure to use/understand appropriate technology;
- Failure to provide adequate, consistent and up-to-date information;
- Breakdown of internal communication

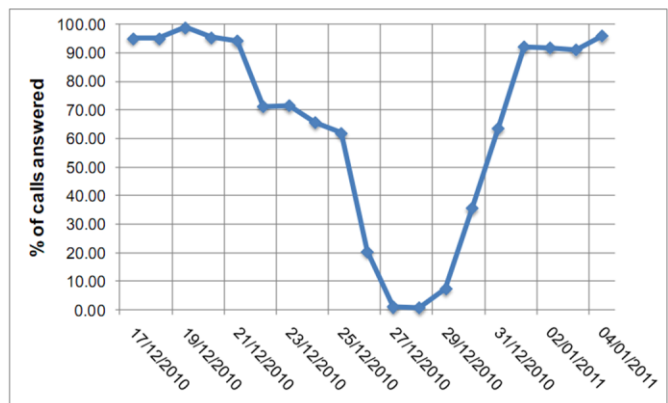
Context

The NI Water Annual Report 2009/10⁴ showed that in the relevant period NI Water's call centre:

- Dealt with over 350,000 customer calls, on average over one thousand five hundred per working day, answering almost 97% of attempted calls;
- Improved from 19th to 3rd out of 24 companies for customer satisfaction; and
- Achieved an average score of 4.6 out of 5 in its quarterly Customer Satisfaction Surveys.

In comparison, over the period of December of 26th to 29th 2010 the number of attempted calls exceeded 700,000 (see table 1), resulting in the percentage of calls being answered going from over 90% to below 1% (see figure 1). The scale of this incident goes some way to explain this, as it is unlikely any call centre could cope with such an escalation in demand, however, NI Water had the opportunity to learn lessons from a similar, albeit less extreme event the previous year.

Figure 1: Percentage of attempted calls answered by a call agent³



Source: UREGNI (2011)

² The Consumer Council for Northern Ireland (2011) "Left high and dry: A Consumer Council report on consumers' stories and experiences of the water crisis" CCNI: Belfast [online] see: <http://nia1.me/a1>

³ Utility Regulator for Northern Ireland (2011) "Utility Regulator's report of the investigation into the Freeze/Thaw incident 2010/11". UREGNI: Belfast [online] see: <http://nia1.me/a9>

⁴ NI Water (2010) "Annual Report 2009/10". NI Water: Belfast [online] see: <http://nia1.me/a7>

In their annual report NI Water noted the effect of freezing conditions over Christmas 2009/10:

*“NI Water dealt with over 350,000 customer calls in 2009/10, arising from a number of factors including [...] the prolonged freezing conditions over Christmas/New Year, [when] **four times the volume of expected calls were received.** As a result the Company missed its 2009/10 KPI on telephone contact with a performance of 96.68% against a target of 98%.”*

This acknowledgement of the problem led to NI Water assuring UREGNI that they were well placed to deal with a repeat incident:

*“During last year’s 2009/10 freeze thaw there was a period during which the call centre was overwhelmed and did not have adequate resources to cope. **NI Water provided the Utility Regulator with assurances that adequate ramp up procedures had been put in place to staff the call centre.** This assurance was reiterated to a wide range of stakeholders on 23 December 2010.”⁵*

Insufficient staffing

Despite this assurance, there was no apparent ‘ramp up’ of NI Waters staffing arrangements; in fact, despite having prior warning of the thaw, and having forecasted in advance that call volumes would be high, table one shows that on the 25th and 26th December there were less staff available to answer calls than the previous year, with no significant increase before December 30th.

Table 1: Comparison on staff provision over Christmas 09/10 and 10/11

Date	Total calls offered 2009/10 (includes all lines busy)	Maximum number of staff provided (FTEs) 2009/10	Total calls offered 2010/11 (includes all lines busy)	Maximum number of staff provided (FTEs) 2010/11	Change +/-
21 December	850	61	3,020	56	-5
22 December	851	56	3,923	60	+4
23 December	475	51	3,285	52	+1
24 December	815	38	3,845	40	+2
25 December	211	15	1,617	11	-4
26 December	1,156	15	6,223	14	-1
27 December	4,451	26	266,579	29	+3
28 December	3,479	48	403,420	50	+2
29 December	2,286	60	66,543	67	+7
30 December	1,699	64	15,882	86	+22
31 December	1,661	48	7,603	58	+10
1 January	486	27	2,784	83	+56
2 January	490	17	1,336	98	+81

UREGNI (2011)

⁵ Utility Regulator for Northern Ireland (2011) “Utility Regulator’s report of the investigation into the Freeze/Thaw incident 2010/11”. UREGNI: Belfast [online] see: <http://nia1.me/a9> PAGE 85 (para. 6.9)

UREGNI concluded that “...the procedures in place for increasing resources within the call centre were totally inadequate and poorly administered”. The key things to bear in mind which led to this conclusion are:

- The thaw was predicted for December 26th and 27th but despite planning action none was taken;
- NI Water forecast high call volumes, but did not match this with staff;
- NI Water was offered help by the Civil Contingencies Group but did not avail of this immediately; had this been accepted NICS call handlers could have been used on 28 December, the day with the highest volume of calls (see table 2);
- NI Water did not know the full extent of its Mutual Aid agreement; the result of this was that call-handling support was not provided until December 31st;
- Staff were asked to volunteer their help, the fact that this was not forthcoming could suggest cultural issues within the organisation or perhaps staff are poorly motivated;
- Staff within the organisation were not cross trained, despite this being seen as best practice; and
- When the ‘ramp up’ began on December 29th, staff were not adequately trained or provided with sufficient information to help consumers.

Table two shows the impact of this understaffing as consumers had to make on average 12 and 14 call on the 27th and 28th December.

Table 2: Number of calls to NI Water (Dec 26-29), unique consumers and average attempts to call*

Date	Number of calls attempted	Number of unique consumers	Average number of attempts per consumer
26 December	6,223	3,353	2
27 December	266,579	18,884	14
28 December	403,420	32,667	12
29 December	66,543	16,496	4

*Average waiting time for a successful call was 26 minutes (90 minutes maximum)

Forecasting

The Central Office of Information (COI) publishes a better practice guide for government contact centres. This highlights the importance of effective forecasting in order for a call centre to operate efficiently and there are industry standards such as applying queuing theory and erlangs (a measurement of telecommunications traffic used to describe traffic volume in one hour)⁶ which aid the calculation of staffing requirements. UREGNI found that NI Water had forecast for the period of the incident,

⁶ COI (2008) “Better Practice Guidance for Government Contact Centres”. COI: London see: <http://nia1.me/a8>

however, this was done over a month in advance, therefore, this event did not factor in the forecast.

UREGNI’s recommendations around the issue of staffing/forecasting are that:

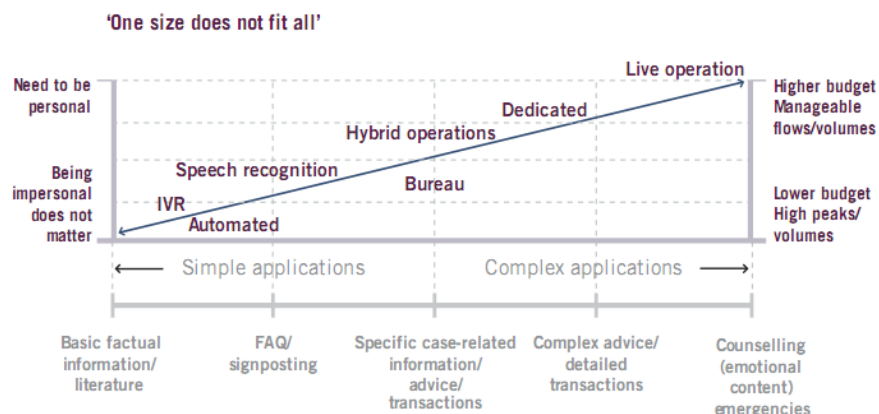
- Regular reviews of call forecasts should be made in an incident situation.
- Resource planning must be started and in place well before the start of an anticipated event, such as a freeze thaw.
- An understanding of the potential resource requirements and shortfalls should be gained to ensure that sufficient resources are in place.
- Formal standby arrangements must be considered to ensure that resources can be mobilised as needed; and
- a formal commitment should be sought from employees, and there should be less reliance on goodwill.⁷

Technology

The COI better practice guide demonstrates that if you understand what type of information people want you can design the service around them. When making this decision it recommends asking, what is the:

- degree of complexity of the interactions;
- need for personal service as opposed to self-service;
- pattern of contact demand; and
- available budget and resources;

Figure one shows how this can be applied in practice; if customers require basic, factual information where being personal is not a factor then Interactive Voice Response (IVR) or Automated response is perfectly adequate. This type of service is shown to work best during high peaks, like those experienced during the freeze thaw.



Source: COI (2007)

⁷ Utility Regulator for Northern Ireland (2011) “Utility Regulator’s report of the investigation into the Freeze/Thaw incident 2010/11”. UREGNI: Belfast [online] see: <http://nia1.me/a9> RECOMMENDATION #30 (page 19)

Industry best practice states that it is never acceptable for a caller to receive a continuous ringing or an engaged tone. This was common during the incident but the problem could have been alleviated through the use of IVR. UREGNI found that during the incident this technology was not used to its full potential:

- Automated messaging was applied to only one of NI Water's customer numbers, 'Waterline';
- The message was only updated three times on this line over the period 22 December to 3 January. Other water companies would update this hourly;
- The wording used and the frequency of the updates were not adequate and were not helpful to consumers;
- One of the messages also directed consumers to the website, which NI Water knew to be unstable at the time.

Reasons cited for not making better use of the IVR system included the fact that local people including elected representatives prefer to talk to an actual person.⁸ While this is understandable, industry best practice clearly shows that factual information can be disseminated to large volumes of people via this technology, minimising the burden on the phone lines.

COI state that "...good use can reduce costs substantially and benefit both the citizen and the organisation. Poor design [in evidence at NI Water] or inappropriate use of IVR (with its impersonal nature) can lead to poor perceptions of government services".⁹

UREGNI recommends:

- NI Water should ensure that it has a full understanding of its telephony system including use of Interactive Voice Response (IVR);¹⁰
- NI Water should consider ring fencing separate emergency and priority lines, for example, hospitals and MLAs;¹¹
- NI Water should consider ring fencing separate capacity for outbound lines;¹²
- NI Water should develop a template so that adequate telephony management information is provided to the incident team;¹³
- Information should be relevant to each line e.g. Waterline, Leakline, MLA line;¹⁴ and
- NI Water should review its outsourced contract.¹⁵

⁸ Interview with UREGNI staff 10/06/2011

⁹ COI (2008) "Better Practice Guidance for Government Contact Centres". COI: London see: <http://nia1.me/a8>

¹⁰ UREGNI report: Recommendation #28 (page 18)

¹¹ UREGNI report: Recommendation #28 (page 18)

¹² UREGNI report: Recommendation #28 (page 18)

¹³ UREGNI report: Recommendation #29 (page 19)

¹⁴ UREGNI report: Recommendation #29 (page 18)

¹⁵ UREGNI report: RECOMMENDATION #30 (page 19)

Call centre management

The first and last points are particularly interesting. NI Water outsources the management of its call centre to Echo, which operates under a service level agreement (SLA) contract. It would seem a fundamental requirement that they would have full knowledge of all systems and that this should be a prerequisite of any such arrangement.

UREGNI point out that overall responsibility for managing the contract rests with NI Water's Director of Customer Services Delivery and that Echo handle the day-to-day operation. They found that no one within NI Water takes ownership of this contract and this inhibited Echo's performance as they struggled to make contact with someone who could make decisions.

Government best practice suggests it is imperative that there is a commitment at senior management level to support the contact centre, stating that *"a contact centre with weak or half-hearted senior management support and little long-term commitment is very likely to fail, or at least not deliver the benefits hoped for"*.¹⁶

Summary

This paper has drawn on investigations which were carried out into NI Water's handling of the freeze thaw event in December 2010;

Between December 26th and 29th, 2010 over 700,000 were made to NI Water of which it answered less than 1%;

Despite the severity of the event, UREGNI found that the procedures in place for increasing resources within the call centre were totally inadequate and poorly administered;

NI Water failed to secure enough staff prior to the event despite forecasting high call volumes;

NI Water failed to make use of external support in a timely manner;

NI Water failed to make use of the appropriate technology which may have eased the severity of the problems; and

There was a breakdown in communication between NI Water and its call centre contractor.

UREGNI have made a series of recommendations which have addressed in this paper and are included in full in annex one.

¹⁶ COI (2008) "Better Practice Guidance for Government Contact Centres". COI: London see: <http://nia1.me/a8>

Annex 1 – UREGNI recommendations to NI Water in regard to its call centre

Technology

NI Water should ensure that it has a full understanding of its telephony system including use of Interactive Voice Response (IVR).

NI Water should consider ring fencing separate emergency and priority lines, for example hospitals and MLAs, so that urgent calls are not lost in a situation where call lines are busy or overwhelmed.

NI Water should consider ring fencing separate capacity for outbound lines so communicating with customers or the wider business is not hindered when call lines are overwhelmed.

Information flow

NI Water should develop a template so that adequate telephony management information is provided to the Incident Team so that informed decisions can be made and guidance offered.

Information should include total calls offered at network, calls at switch, abandoned calls, numbers of engaged tones, average wait, longest wait, IVR performance, last update of IVR, numbers of calls taken split by category, numbers of resources available, call forecasts and resource gaps.

Where appropriate, information should be provided per line e.g. Waterline, Leakline, MLA line.

All managers should be briefed on the importance of this information and the intelligence that can be extracted from it.

Planning

NI Water should conduct a review of its call overflow facilities both internally and externally.

Regular reviews of call forecasts should be made in an incident situation.

Resource planning must be started and in place well before the start of an anticipated event, such as a freeze thaw.

An understanding of the potential resource requirements and shortfalls should be gained to ensure that sufficient resources are in place.

Formal standby arrangements must be considered to ensure that resources can be mobilised as needed.

A formal commitment should be sought from employees, and there should be less reliance on goodwill.

The Company should consider the benefits of double skilling its workforce to provide extra and more flexible resources in the event of major incidents.

Call centre management

NI Water should review its outsourced contract, including business continuity plans, for the Call Centre and ensure performance levels and tolerances reflect the possible needs that may arise during an incident.

Agreement should be made on work priorities (for example, SLA performance, customer experience, priority of work types and work volumes).