

INTERMODAL PUBLIC TRANSPORT INFORMATION CALL CENTRE: DEMONSTRATION PROJECT

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1. INTRODUCTION

Within the Cape Metropolitan Area it was recognised early in 1997 that there was no single source from which passengers could obtain information on all modes of public transport. As a result the Cape Metropolitan Council initiated a demonstration project for a Metropolitan Transport Information Call Centre.

The tender for the development and subsequent operation of a Call Centre was awarded to Izinga Access (Pty) Ltd at a cost of R8,2 million at the end of August 1997. Three months were spent on the development of the software and the installation of the hardware. Thereafter on 1 December 1997 the Call Centre became operational and provided passengers with information on all modes of public transport through a toll free telephone number 0800 65 64 63.

The key objective of the demonstration project was to test the need for such an intermodal call centre. In addition, the management, costs and infrastructure required for the call centre as well as the integration requirements were assessed.

2. NEED FOR AN INTERMODAL CALL CENTRE

The empowerment of passengers to enable informed choices to be made is a cornerstone of the Moving South Africa Strategy and Action Agenda. Two key principles of the Action Agenda are

- *Create customer-facing systems – Orient actions around customer rather than modal groupings.*
- *Enhance customer power – Improve the ability of customers to demand high levels of service and to capture benefits that flow from the Action Agenda.*
- An intermodal call centre promotes these principles in that it provides an opportunity for passengers to obtain the necessary information so that they can choose the public transport service which best meets their needs.

Furthermore, as public transport systems become more complex, traditional methods of publicising information in timetables and fare tables become increasingly difficult for users to locate the necessary information, let alone decipher its presentation. The updating and re-issuing of this information becomes a very costly exercise for authorities and operators. An intermodal call centre allows passengers to locate the necessary information with minimal time and effort.

3. CALL RATE FOR DEMONSTRATION PROJECT

In developing the technical specifications for the demonstration project for the intermodal call centre an estimate had to be made of the call rate. Based on international experience a call centre of this nature should anticipate one call per head of population *per annum*. Given that the Cape Metropolitan Area has an estimated population of some 2,5 million people an annual call rate of this amount was anticipated. Based on this information the telephone and computer system specified was capable of accommodating this call rate.

The actual call rate achieved during the contract is shown in Table 1.

TABLE 1: CALLS RECEIVED BY THE MTI CALL CENTRE

	Month	Total Calls	Incident
1997:	December	663	
1998:	January	1316	
	February	5576	
	March	11848	
	April	23623	
	May	22969	
	June	24386	
	July	32888	Metrorail strike
	August	31242	
	September	33169	Bomb scares on Cape Town Station
	October	30903	
	November	28110	2 Metro Lines diverted to Syberia
	December	36281	GA Holiday Timetable
1999:	January	61091	New Metro Timetables
	February	34846	Metro Lines re-diverted to MTI
	March	33284	
	April	57796	GA Bus Strike
	May	47682	
	June	44535	
	July	44648	
	August	47429	
	September	49489	

The calls that have been directed to the call centre have so far achieved some 30% of the anticipated annual level. Although the rate of growth slowed towards the end of 1998, it picked up dramatically when cuts were introduced to rail services in January 1999. The call rate also peaked during the bus strike in April 1999.

Approximately 90% of all calls received are requests for information with an average duration of four minutes. The balance of the calls are made up of complaints with a duration of approximately ten minutes. On average, complaint resolution requires three further outgoing calls and two faxes.

The distribution of calls from Telkom's distance steps is as follows:

<u>Distance Step</u>	<u>% of Calls</u>
A 0-50 km	50%
B 50-100 km	30%
C >100 km	20%

4. MANAGEMENT OF DEMONSTRATION PROJECT

The management of the call centre is assessed from five perspectives. These are as follows:

4.1 Administrative Systems

Administrative systems have been set in place to provide management information and key performance indicators. The systems are computerised and the outputs have evolved in response to the clients' requirements. Key performance indicators are reported on monthly. These include the total number of calls, the cost per call, average call duration and the waiting time prior to the call being answered. In addition, a system has been set in place whereby callers are chosen at random to rate the quality of service they have perceived to receive.

Further daily detailed breakdowns on the number of calls per mode as well as the type of information requested is reported on. These reports have proved invaluable in providing feedback on the type of information which is required by callers. This feedback has been used for further development and improvement of the service provided.

4.2 Software Development

Software development has from the outset been recognised as the cornerstone of this demonstration project. So much so that a full-time IT manager is deployed at the call centre. Initially the software was developed to provide a readily accessible database of public transport information on routes, timetables and fares for all modes of public transport. Thereafter further software was developed to handle complaints. The database was linked to a GIS which vastly assisted the call centre operators in providing information on multimodal trips.

Software was developed to provide management information as required by the Administrative Systems.

4.3 Training

All staff employed undertake an intensive training programme with respect to telecommunication and public interface skills. Training is also given on product knowledge (public transport information). The office manager is well qualified and experienced in training methods and ensures that all staff receive regular refresher training to continuously improve skills and product knowledge.

4.4 Complaints

The call centre handles complaints on behalf of Metrorail (Western Cape) and Golden Arrow Bus services. Procedures and protocols have been developed whereby depending on the type of complaint it can be handled immediately by the call centre staff or referred to the operators. In all instances the call centre operators provide feedback to the complainant as to what action has been taken to address the complaint.

4. Marketing/Liaison

Extensive liaison takes place with the service providers to ensure that the information on the call centre database is correct and up to date. Information on service changes and delays is immediately passed on to the call centre to ensure that commuters are given correct information. The toll free number is marketed through advertising in the press and on the radio as well as by the distribution of leaflets and stickers at public transport facilities.

5. INFRASTRUCTURE

The infrastructure required to support the call centre comprises the telecommunication equipment, computer facilities, workstations, training facilities and a rest area. Equipment necessary to audit the operations has also been installed (e.g. voice loggers).

6. COSTS

At the current call rate of up to ±60 000 calls per month the monthly costs amount to R216 600 per month. This amount is in terms of the contract between Izinga and the Cape Metropolitan Council and it is estimated that the contractors profit margin is about 5%.

The cost of a call comprises a fixed cost component for infrastructure and a variable cost component for operator salaries and telephone costs. At present twelve operators are deployed to handle up to 60 000 calls per month. In order to achieve the system capability of 210 000 calls per month it is estimated that about forty-two operators would be required. The implications of this are shown in Table 2 below.

TABLE 2: UNIT CALL COST EVALUATION

CALL BASIS		MONTHLY COSTS / UNIT COSTS				
		Fixed Costs (Ex VAT)	Fixed Cost Call Unit Cost	Variable Costs (Ex VAT)	Variable CostUnit Call Cost	Total Cost Call Cost Unit
1 Full Utilisation of System (210 000 calls per month) (2,52 million calls <i>per annum</i>)		120 000	0,57	319 000	1,52	2,09
2 Current Utilisation of System (based upon historical usage to date)						
Month	No of Calls					
December 1997	663	102 000	153.85	36 000	54.30	208.15
January 1998	1316	102 000	77.51	36 000	27.36	104.87
February 1998	5576	102 000	18.29	42 000	7.53	25.82
March 1998	11848	112 000	9.45	66 000	5.57	15.02
April 1998	23623	122 000	5.16	80 000	3.39	8.55
May 1998	22969	122 000	5.31	82 000	3.57	8.88
June 1998	24386	122 000	5.00	76 000	3.12	8.12
July 1998	32888	122 000	3.71	92 000	2.80	6.51
August 1998	31242	122 000	3.90	92 000	2.94	6.85
Sept 1998	33169	122 000	3.68	89 000	2.68	6.36
October 1998	30903	122 000	3.95	92 000	2.98	6.93
November 1998	28110	122 000	4.34	88 000	3.13	7.47
December 1998	36281	122 000	3.36	90 000	2.48	5.84
January 1999	61091	122 000	2.00	105 000	1.72	3.72

These costs can be translated into a cost associated with the total number of passenger trips on a monthly basis. The current number of public transport trips per day in the Cape Metropolitan Area is estimated at 1,2 million. Ignoring weekend services this amounts to 24 million trips per month. Based on the current call rate of 60 000 per month and the monthly cost of operating the call centre of R216 600 then the cost per passenger trip is one cent. Should the call rate increase to the system capability of 210 000 calls per month the cost would increase to two cents.

7. MODAL INTEGRATION

The software underpinning the call centre has been developed with local knowledge and with the input of the local service providers. The rail system has been the easiest to input, while the bus system has relied on the development of an extensive interaction with the appropriate mapping that allows the definition of individual routes. The taxi industry has proved to be most problematic in terms of securing the route information used, the timetables being followed and the fare structures that apply.

This has been successfully completed for the bus and rail components and is still evolving for the taxi industry. The software that has been developed as well as the procedures and protocols that have been set up have resulted in a system that is able to integrate the passenger information relating to the three major modes.

Calls to the centre have indicated that there are a number of transport related areas for which information is lacking. This includes the tourist destination sector, the charter sector as well as the metered taxi sector. These sectors were not specifically included in the original tender requirements although subsequent marketing initiatives established a reluctance to pay for inclusion at this stage by the appropriate bodies involved.

8. CONCLUSIONS

The demonstration project has demonstrated the usefulness and need for a call centre of this nature. The management structures required to support the call centre have been identified and the associated costs established. The infrastructure necessary for the operations has been acquired, installed and commissioned successfully. Effective training measures have been initiated and significant empowerment outcomes have been achieved.

The value that has been added to the public transport system in the Cape Metropolitan Area has been significant. The rising call rate, the role that the call centre has played in disseminating information during incidents and in the handling of complaints clearly illustrates the need for such an organisation and facility.

The decreasing unit cost of providing information as well as the low cost per trip of between one and two cents indicates the effectiveness of the call centre in disseminating information.

Due to the success of the demonstration project the Cape Metropolitan Council has called for the running of the call centre for a further three year period. In December 1999 the contract was again awarded to Izinga Access (Pty) Ltd at a cost of R12,6 million.

REFERENCES

1. Moving South Africa Action Agenda, May 1999, Department of Transport.
2. Report to the Cape Metropolitan Council on the Metropolitan Transport Information Call Centre, May 1999, Modalink.

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