DERBY CITY COUNCIL

Customer Service Information System
Microsoft Customer Relationship Management System – The Business Case for the Proof of Concept Pilot in the Council's Pest Control Service

1 Executive summary

1.1 The Customer Service Information System proof of concept pilot, using Microsoft's Customer Relationship Management system in our pest control service, has been operational since 22 September 2005. The abandoned vehicles and dog warden's service became operational within the pilot from 24 November 2005.

1.2 The majority of customer contacts for these services are made by telephone and prior to the pilot, there was some evidence of customers being frustrated by the length of time they had to wait on the telephone before getting through. The numbers of 'abandoned' telephone calls was consequently very high during busy periods.

1.3 The existing Pest Control Service administration systems were mainly manual with some limited IT record storage. Customer interaction was therefore dependent on the skills and knowledge of experienced customer care staff working within the Environmental and Trading Standards Service.

1.4 Processing of work and allocation of visits to a pest control officer was manual and reliant on the skills of the pest control supervision. Payments for work to be done were manual via cash or cheque and the distance between the pest control depot and office base, together with the lack of electronic links meant frequent journeys between the two sites and lost productivity.

1.5 The proof of concept pilot using Microsoft CRM aimed to bring business transformational change and an improvement in the delivery of customer service within the pest control service, a service that was already providing good services to customers.

1.6 Very soon into the pilot it became clear that the pilot was delivering such a step change. Throughout the pilot we have received 3,000 telephone calls and only 3% of these calls were abandoned by users before getting through to one of our customer service operators. 85% of the calls were answered within 6 telephone rings which is a significant improvement in customer service.

1.7 This transformation has meant we now have a fully integrated CRM system with a back office ICT system, with links to electronic payment facilities and a knowledge data base for premises. An appointment is offered to the customer, at their convenience, during their first contact with the service.

1.8 The experience gained by this pilot and summarised in this business case articulates a transformational change in the way we can interact with customers in all front line services across the Council by rolling out the customer service information concept utilising Microsoft's Customer Relationship Management system.

1.9 Following this thorough evaluation of the Microsoft CRM solution and its impact on service delivery to our customers, the project board is absolutely satisfied that the 'proof of concept' is proven.

1.10 The CSIS concept, supported by the Microsoft CRM software solution, will enable the delivery of the Council's vision and corporate plan priority of improving customer service in all council service areas.

1.11 The total cost of the pilot has been £166,300 as shown in table 1 on page 12 of the business case document. However all this cost is non recurring should CSIS be rolled out across that Council as we now have the staff with the required skills to do all future work in house following lessons learned from the pilot. The only costs we would incur are the cost of additional Microsoft CRM licences at £450 per licence as more services are migrated into Derby Direct. These costs will be met from efficiency savings following the business process re-engineering work.

1.12 As for the potential costs, what has come out of the pilot is the concept of a 'dynamic business case' that identifies clearly up front development and infrastructure costs, but quantifies the benefits out of each subsequent piece of BPR analysis for each new service brought into the CSIS environment. This is a significant shift away from the traditional way of preparing a business case, with clearly defined costs around procurement and implementation of a system and the subsequent benefits. This is not appropriate following lessons learned from this pilot where each time a service undergoes BPR and is brought into CSIS, the cost and savings model will change dependant upon such variables as the complexity of integration with the appropriate line of business application and the scope of efficiencies and savings arising out of the BPR analysis

1.13 Each time a service is brought into CSIS, the cost model will change dependant upon such variables as the complexity of integration with the appropriate line of business application, the number of customer telephone calls expected, complexity of the service and existing contact centre workloads. This information will not be quantifiable until

the BPR analysis has been performed which will be on a service by service basis.

1.14 By way of example, based on experience gained from the pilot, the estimated cost of migrating our Streetcare and Parking Service operations into Derby Direct with full back office integration into Microsoft CRM will cost circa £35,000, including the cost of licenses. The CSIS Project Board is confident that the efficiency savings within the service and the corresponding reduction in numbers of full time equivalent customer service operatives in Derby Direct will be significantly more than this.

2 Introduction

2.1 Implementation of a Customer Services Information System – CSIS – is a requirement of all local authorities to meet the Office of the Deputy Prime Minister's 'priority outcomes' targets for accessible services with the aim of an improved level of service to citizens.

2.2 The provision of CSIS software and services are key to the success of the overall accessible services programme aims where the purpose is to deliver a CSIS system with links to software products that will provide one overall solution.

2.3 Following project approval by the e-Derby Board on 24 November 2004, the CSIS Board commissioned consultants – Optevia – to carry out a business process review of several services including:

- Housing benefit home visits
- Taxi licensing
- Pest control
- Council Tax and benefit form management
- Electoral registration
- Abandoned vehicles.

2.4 Following this exercise and a presentation by Optevia, it became clear that improving telephone call handling and back office ICT Systems integration would lead to a better service to the public and less pressure on our staff within our Pest Control Service, therefore making this service the ideal pilot for the CSIS - proof of concept.

2.5 A further key objective of CSIS is to facilitate improved service access to the public in line with our Corporate Plan priorities and our Customer Service Strategy.

3 Key messages

3.1 Rats, mice and all sorts of creepy crawlies that find their way into people's homes are the cause of over 10,000 calls a year from customers asking for help of Derby City Council's Pest Control Service.

3.2 Public expectations of the pest control service are high. People get very emotional after seeing a pest or evidence of a pest in their home. Professional and friendly customer care during the customer telephone call linked to a high quality pest control service means the Council deliver high levels of customer satisfaction.

3.3 Derby City Council's Pest Control Service has received high scores in customer satisfaction surveys in the past. However, it was clear that telephone access by customers was difficult at times and our administration systems were time consuming. We operated on a paper based system with little knowledge of a customer's previous history with our service and administration of the service involved considerable manual processing.

3.4 The majority of customer contacts with our Pest Control Service are made by telephone. In the summer, customer service staff become under pressure with large numbers of customer calls. In the past, whilst no accurate information was available, it was clear that the public were frustrated by the length of time they had to wait on the telephone or get the engaged tone, the numbers of abandoned calls was very high during busy periods. Despite all these operational problems, customer satisfaction surveys showed that when people got through to our staff, they were helped and were given good advice. The quality of the pest control treatment services was also praised.

3.5 The flow of activity for Pest Control administration is relatively simple for the customer:

- you see a pest in your home
- you ring the Council's Contact number
- we discuss your problem
- we give advice and/or
- we book a visit for a pest control officer
- the pest control officer visits, in some cases taking a payment
- they give advice and/or, carry out treatment
- they re-visit until the pest is eradicated
- we close the file.

3.6 The existing Pest Control Service administration systems were mainly manual with some limited IT record storage. Customer interaction was dependent on the skills and knowledge of experienced customer care staff. Processing of work and allocation of visits to a pest control officer was manual and reliant on the skills of the pest control supervision. Payments for work to be done were manual via cash or cheque. The distance between the pest control depot and office base and lack of electronic links meant frequent journeys between the two sites and lost productivity.

3.7 The proof of concept pilot using Microsoft Customer Relationship Management System aimed to bring business transformational change

to a service already providing good services to customers. Very soon into the pilot it became clear that the pilot was delivering such a step change.

3.8 The transformation has meant we now have a fully integrated customer relationship management system with a back office ICT system with links to electronic payment facilities and a knowledge data base for premises.

3.9 A step change has been delivered in our knowledge about the customer calling for advice and assistance. While interacting with the customer:

- we can retrieve details of premises
- any previous history of customer interaction
- and access a comprehensive database of knowledge about pests to offer 'expert' advice.

3.10 The customer can also be offered a time slot for their appointment that is convenient for them and this automatically books the pest control officer's visit. At the time of the customer call, payment can be taken electronically, which reduces cash handling and is convenient for customers.

3.11 Having all of this information to hand means new employees with very limited pest control knowledge, and no direct experience have been able to offer excellent advice and services to the customer.

4 Business Process Re-engineering

4.1 The CSIS project has involved a full business process re-engineering – BPR - of all end to end business processes and work flows in the pest control service. This has lead to improvements in all aspects of the process. Microsoft's 'Customer Relationship Management' software has been tailored throughout the pilot to gather first point of contact information about customer service needs. Links to the Land and Property Gazetteer – LPG - and our Electronic Payment Systems have improved how customers are dealt with.

4.2 What has come out of the pilot is the concept of a dynamic business case that identifies clearly up front development and infrastructure costs, but quantifies the benefits out of each subsequent piece of BPR analysis for each new service brought into the CSIS environment. This is a significant shift away from the traditional way of preparing a business case, with clearly defined costs around procurement and implementation of a system and the subsequent benefits. This is not appropriate following lessons learned from this pilot where each time a service undergoes BPR and is brought into CSIS, the cost and savings model will change dependant upon such variables as the complexity of integration with the appropriate line of business application and the scope of efficiencies and savings arising out of the BPR analysis.

4.3 To be able to fully quantify the total benefits, including efficiencies, at the proof of concept pilot stage is dependant upon the services chosen to be reengineered into the CSIS environment and the subsequent results of that BPR analysis. It is not appropriate to extrapolate the benefits from what has been achieved with pest control, abandoned vehicles and the dog wardens service across all service headings, however the benefits model can be taken as indicative.

4.4 What is clear is that the proof of concept pilot has definitely demonstrated the sustainability of the CSIS system for supporting the delivery of all front line Council services for the benefit of customers and has also identified the means of quantifying and evaluating the tangible benefits.

4.5 The template recommended for use by the Office of the Deputy Prime Minister's National CRM Project defines an approach to delivering a CRM solution as being

"based on selecting the high priority services and then fully automating the integration of these services. This generally involves providing a CRM front-end facility, which captures the service request and integrates with the back office service provider for satisfying the service request. Interactions are automated between different service providers to achieve maximum efficiency."

This is consistent with our approach to implementing CRM. The CSIS solution very much mirrors this ODPM definition, although our approach develops this further to provide a solution that could deliver a City Wide framework for customer management.

4.6 The technological edge we have pursued throughout this pilot is evident and Microsoft has recognised this and they are keen to move forward with resourcing a deep case study that will see Derby being heralded as the pinnacle of public sector CRM development. Their intention is to focus on the delivery of a sustainable customer services solution that enables business transformation using the integrated components of our strategic framework

5 Service evaluation

5.1 Evaluation of the CSIS solution has been performed looking at the three main areas of impact including:

- Customers
- Customer Services and the
- Business.

5.2 Each evaluation considered the actual known benefits, both quantifiable and qualitative, and the perceived benefits.

Impact on Customers
Actual Benefits – Measurable

5.3 The customers find it easier to get through on the telephone at the first attempt. Between 22 September and 3 November 2005, the CSIS pilot answered 87.9% of all calls offered with only 12.1% being abandoned. 82% of calls were answered within our customer service standard of 6 rings, which is above our target of 80%.

5.4 The calls are now dealt with to a 'deeper' level, where over 80% of calls were resolved through delivering advice to customers, and the remaining calls resulted in appointments being booked for pest control officers to carry out a service in the customers' homes.

5.5 A streamlined process, enabling visit appointments for either an afternoon or morning slot and, where required and convenient for customers, the charge payment was able to be taken over the phone during the customers' first contact.

5.6 The customer contact is now much more efficient where all required information is collected and advice given at first point of contact, significantly reducing the need and cost of call backs to customers.

Actual Benefits – Qualitative

5.7 Courtesy calls were made to a number of customers who had previously called the pest control line for advice asking them for feedback on how they had been dealt with. From these calls it was clear that customers were very satisfied with the service standard provided by the customer service advisors. Callers confirmed that they received useful advice and were able to make contact with an advisor on their first attempt of calling the pest control telephone line.

5.8 The process is structured to the degree that dependent on the type of enquiry and service requested the entire process is now able to be dealt with over the phone. The customer may not need to do anymore other than to place the call and pay for the service.

5.9 Customers can also be emailed or posted information if required.

Perceived Benefits

5.10 Customers find it easier to get through to a customer services advisor.

5.11 Customers can complete the transaction over the phone there and then.

5.12 The Council now provides a more complete and joined up service.

Impact on Customer Services
Actual benefits – measurable

5.13 CSIS allows the customer service advisor to deal with enquiries quickly. No evidence is available to compare to the previous service, however, as existing customer details are now stored, a request for a new service is much quicker as there is no need to request and re-submit the customer's details.

5.14 CSIS is able to deal with more customers at any one time and the database is efficient and effective.

5.15 The number of abandoned calls has reduced. Previously very little data was available to pest control managers on incoming telephone call enquiries. Prior to the pilot, on a particularly busy week in September 2005, the pest control 'hotline' was offered 2,795 calls, only 508 were answered and 2,287 were abandoned.

5.16 CSIS enables interrogation of the information held to produce reports. This information was not available in such detail previously. Reports can be produced to report on the status of cases, the number of cases generated by date and the number of cases by operator for example.

5.17 The system has created a database of customers who have called to request a service. This is held in a simple, logical fashion and can be interrogated as required. This means that if a customer calls the Council for a second time for whatever reason, we already have their contact details on file, reducing call times. We estimate that at least one minute per contact is saved and with over 10,000 contacts per year, this equates to over 160 hours saving in staff time.

5.18 We now have an audit trail that can be tracked from first contact through to delivery of service by officers in the field. This can be used to manage service standards with our customers.

5.19 CSIS integrates with the Local Land and Property Gazetteer – LLPG – to validate the correct address details. Previously the address and postcode details were taken as correct when given by the customer.

5.20 Customers can now pay for their service needs over the phone, at first point of contact. This delivers a number of efficiencies including increased security by reducing the amount of cash carried by the officers in the field. Visiting times have been reduced as has the time taken in the cashing up and accounting process times.

Actual Benefits – Qualitative

5.21 From evidence to date, the quality of service provided to customers is at least equivalent to the previous service delivered where CSIS:

- has enabled more calls to be answered
- the number of abandoned calls has reduced

- the ‘intelligent’ queuing system within the telephony system means customers do not get an engaged tone. They are made aware they have got through to the Council and waiting for the call to be answered is a ‘pleasant’ experience
- the system has an in built office organiser that can create a workflow reminder to the operator
- the customer can pay for the service at first point of contact
- the knowledge base is easy to access, can be updated quickly to cover changes in service, seasonal changes and any contingency operations, is user friendly and easily navigable to find customers, case references and information.

5.22 Overall, the system provides our customer service advisors with all information needed to provide an excellent customer service.

Perceived Benefits

5.23 Customer feedback suggests that it has been easier to access the pest control service by telephone and the advice given is of a high quality and relevant to the call.

5.24 The service delivery to the customer is smoother. A larger part of the process is delivered at first point of contact:

Call –> advice –> booking –> payment – only then is it handed over to the professionals in the field.

5.25 Having a CRM system has reduced the need to contact field officers so often, therefore officers are receiving fewer interruptions enabling them to get on with the job

Impact on the Business
Actual Benefits – Measurable

5.26 It is now possible to take payment by phone while interacting with the customer. This will reduce the amount of cash carried in person by staff.

5.27 Field Officers are receiving less telephone enquiries enabling them to get on with the job. Making either morning or afternoon appointments by area makes it easier to incorporate unforeseen and emergency visits.

5.28 By organising work into areas with the new appointment system it will be easier to monitor service requests in terms of area and make operational changes if necessary to cope with demand.

5.29 Prior to the pilot, work sheets for every customer were produced manually which was time consuming. In addition, there is often duplication of activity e.g. if a customer requests a service more than

once, a job sheet must be completed each time. It is estimated that about 8,000 job sheets a year are produced. We estimate that each one takes on average 8 minutes to process which equates to a saving of over 1,000 hours work – a half of a full time equivalent post.

5.30 Reduction in paper use will also result in savings, although in the short term, this will be offset by increased printing costs. In the medium term, the utilisation of mobile technology could remove the need for printing job sheets completely.

5.31 The Pest Control Depot is about 2 miles from the Administration Centre. Electronic transfer of service requests will reduce the need to travel, save officer time and reduce fuel costs. Electronic exchange of information also speeds up work flows resulting in an improvement in service quality. The reduction in Administration Centre visits saves about 35 minutes per trip on average which equates to a saving of about 90 minutes a week on about 11 person days a year.

5.32 Electronic booking of pest control officer visits reduces the need to contact officers by phone, improving their productivity and reducing phone bills. It also offers better work allocation and route scheduling for pest control staff, improving their productivity and reducing fuel bills

Actual Benefits – Qualitative

5.33 Whilst customer satisfaction levels were high prior to CSIS, feedback from the pilot indicates an improvement on overall levels of satisfaction.

5.34 Feedback from staff indicates that they receive fewer interruptions allowing them to concentrate on their work which means the service is easier to contact and give sound initial advice. This, coupled with high service standards from the visiting officer should ensure customers are happy to use the service again should they need to.

5.35 The ‘old’ system was time consuming for the staff because of the time taken to gain access and then record customer details and fill out record sheets. CSIS allows customer details to be filled in much faster and links to the Land and Property Gazetteer allows address details to be populated quickly and accurately. Drop down menus in the system also allows ‘pest type’ and ‘location’ fields to be populated quickly and the supporting knowledge database on pests opens up as the details are filled in, allowing information and some reassurance to be given to customers.

5.36 The CSIS implementation allows the customer to be offered a morning or afternoon visit ‘slot’. The electronic calendar system improves staff allocation and reduces journey distance and time, therefore customer service is improved and efficiency and effectiveness of staff is also gained. Neither of these efficiencies can be quantified financially.

5.37 The implementation has also lead to easy to access performance management data. In the past any information required on performance would usually be derived by manual collection and analysis. Some simple IT analysis was possible, but in the main it required manual counting. Because of the number of service records involved, this was laborious and took staff away from more important tasks. Performance monitoring was therefore not an integral part of managing the service. It also meant that any changes were usually based on perception, not accurate data. It is expected that accurate and easily accessible data will improve performance management and allow that to be integral to service management and improvement.

5.38 Also, better knowledge and improved information about customers means people who owe the service money, can be refused service. It is also expected that people who fail to be present for an appointment could be identified with a view to levying a financial penalty or refusing the service in extreme cases.

Perceived Benefits

5.39 Customer feedback suggests that it has been easier to access the service by telephone giving a higher level of satisfaction.

5.40 The advice given is of a high quality and gives confidence to customers.

5.41 We now have a more accessible service which is likely to lead to higher demands on pest control staff in the busy summer months. It is probable that difficulties in accessing the service, has limited demands on pest control officers in the past. It may be that more pest control staff will be needed in the future to cope with customer demand.

6 Financial evaluation

CSIS Proof of concept implementation cost

6.1 Table 1 provides a breakdown of the £166,300 total cost that was incurred throughout the CSIS Proof of Concept Pilot.

6.2 The full £161,300 is a non recurring cost should CSIS be rolled out across the Council as we now have the staff with the required skills to do all future work in house following lessons learned from the pilot.

6.3 The only costs we would incur are the cost of Microsoft CRM licences at £450 per licence as more services are migrated into Derby Direct. These costs will be met from efficiency savings following the business process re-engineering work.

6.4 A large number of lessons have been learnt throughout the proof of concept that will prove invaluable as additional services are migrated to CSIS and feed into the requirements for new line of business system procurement.

TABLE 1 – Breakdown of Costs Incurred in the CSIS Proof of Concept Pilot

Area	Item	Description	Cost	Funded by
Software	MSCRM Server licence	One off cost required to conduct the pilot	£1,000	e-Derby
	MSCRM Client licence	6 licences for users at £650 per licence	£3,900	e-Derby
	Flare – back office software connector	One off cost to enable integration through BizTalk	£12,000	Env Health Service
Process 1	Service discovery	One off piece of business process re-engineering work as an initial proof of concept to review and select services to be potentially included in the pilot	£25,000	e-Derby
Process 2	Service development	One off piece of development work for taxi licensing, pest control and abandoned vehicles. These were consultancy costs for work done that was not deployed into the pilot due to a better and more practical solution on a 'thin and wide' integration basis being developed further into the pilot. Although this work was not deployed, there were valuable lessons learned for future roll out.	£50,000	e-Derby
Process 3	Service integration	One off piece of work for BizTalk integration; Flare to CSIS, CSIS to Flare and CSIS to LLPG. InfoPath form development, booking system development and links to online payments. We now have skills in house to deliver this sort of work.	£64,000	Service
Process 4	Additional services	One of piece of additional work for Abandoned vehicle and Dog Warden services – over and above original	£10,400	Service

Area	Item	Description	Cost	Funded by
		spec		
		Total Cost of Pilot	**£166,300**	

CSIS additional service implementation cost

6.3 A sustainable infrastructure has been one of the key considerations of the CSIS implementation. Table 2 is a breakdown of the potential costs to migrate new services into CSIS.

6.4 Each time a service is brought into CSIS, the cost model will change dependant upon such variables as the complexity of integration with the appropriate line of business application, the number of calls expected, complexity of the service and existing contact centre workloads, this information will be unquantifiable until the BPR analysis has been performed.

TABLE 2 – Breakdown of potential costs to migrate new services into CSIS

Area	Item	Comments	Cost
Hardware	Server	A longer term consideration, dependent upon the number of calls expected, complexity of service and contact centre workload, server performance may need to be improved	Not quantified although likely to be marginal
	Storage	Although a longer term consideration, dependent upon the number of calls expected, complexity of service and contact centre workload, storage capacity may need to be increased	Not quantified although likely to be marginal
Software	MSCRM Client licence	Dependent upon the number of calls expected and the complexity of the service, additional licences may be required @ £450 each	The number multiplied by £450
	Connector	Dependent upon back office system and its ability to integrate with CSIS, additional cost may be incurred to enhance that system	£0 - £10k per system
	Meridio / K2 licence	Records Management and Process Workflow licence ** see note1.	£75 per user per year
Process 2	Service Process Reengineering	Undertaken by Council Change Management / BPR team	No cost
Process 3	Service integration	Dependent upon the integration requirements, the work should be	No cost where

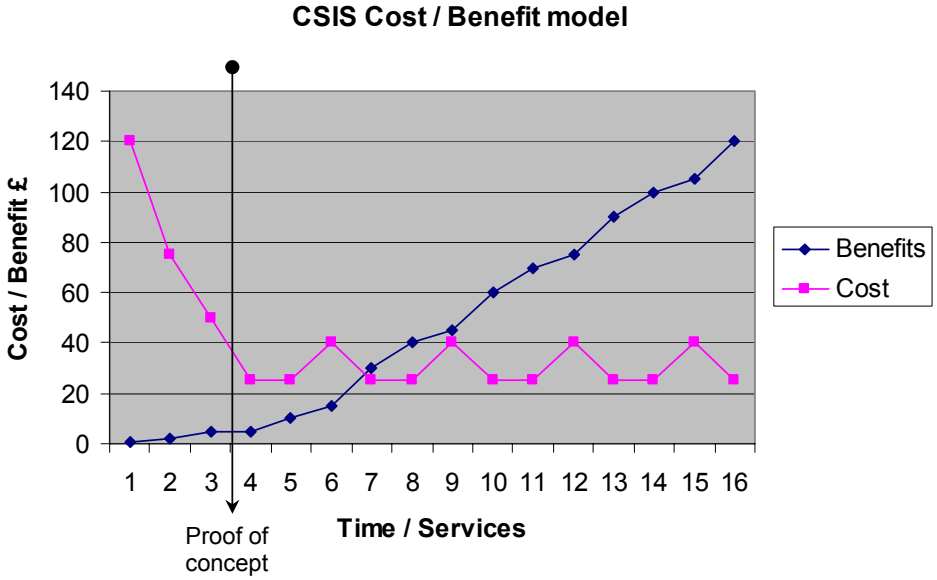
		undertaken by Council Business Solutions team, although initially for the more technical integration requirements the team will need to be supported by our Technology partners	undertaken by the Business Solutions Team

** Note1: This cost is based on the Council committing to the deployment of a corporate solution for Records Management (EDRMS) and Process Workflow as core components within the strategic IT framework. Without this commitment the cost per licence per year is expected to be £500.

CSIS Cost / Benefit model

6.5 Figure 1 demonstrates an expected cost benefit service model. This is a very indicative model of the likely pattern of costs and benefits over time and will be quantified within the dynamic business case developed as for each service migration into CSIS.

Figure 1 – Expected cost benefit service model



6.6 As our internal knowledge and experience grows in the employment of the strategic ICT framework toolkit and our existing legacy applications are being replaced with modern applications that deliver the necessary integration requirements, the cost of migrating service with CSIS is expected to reduce further.

7 Lessons learned

7.1 During its lifecycle the CSIS proof of concept pilot has enabled us to learn a large number of lessons. These lessons have been broken down into four core areas:

- Project
- Technical
- Business
- Customer services.

Project

7.2 The project should have a **supplier project management role** feeding into supplier representation on the project board.

7.3 The project should have **representation from the contractor** reporting into the supplier, at specific project board meetings.

7.4 **Strong project assurance** - through the allocation of an overall technical owner of the solution. Their role is to perform regular technical assurance reviews to give assurance to the project board that the solution remains within Derby's Strategic IT framework. This review process is to include regular user assurance from both customer services and the business unit.

7.5 **Change the project structure to include strong representation from Customer Services** - the initial project team structure was mainly focused around the business users. This lead to the business users defining their requirements against their business functions and not always from a customer services perspective. The structure was changed to provide greater inclusion for customer services, with a change manager leading both areas.

7.6 **Business Process Reengineering** needs to be the start point for all services being migrated to the CSIS solution, the outcome of which needs to be the process change and technical requirements.

7.7 Prior to any development work progressing, the project manager should confirm the technical ability of the existing system to integrate with CSIS. The **type and level of integration** should be clearly defined in writing, be understood and signed up to by the business system supplier.

7.8 As new services are migrated to CSIS, the project needs to ensure that the project team receive a briefing on the **strategic IT framework and the 'thin and wide' strategy,** along with a demonstration of the existing CSIS services.

7.9 There needs to be a very clear definition of the **customer service split** between the front and back office so that front line customer service advisors have a very clear brief when they should pass a customer to 'back office' experts. This also needs to include the responsibilities

and actions to be taken if cross over between front and back office occurs.

7.10 There needs to be a clear **design specification**, covering both the process design and the technical design. This document must be completed and accepted by all parties then approved by the project board, before the project moves to the development stage.

7.11 Throughout the project, **change control** must be applied and strictly adhered to. For development the approved design specification must be the basis against which the solution is built and processes changed, any deviation to the approved design must be change controlled. All members of the project team must be made aware of the change control process.

7.12 **Involve all staff** from an early stage. This needs to include a briefing of the aims and objectives of CSIS and include staff in the front and back office split review. Staff need to be involved in the development of front office scripts and user acceptance testing. It is also important to include trade union representation throughout.

7.13 **Change management** should be introduced at the earliest possible stage to manage the implementation of the new processes and consider the staffing implications.

7.14 Care needs to be taken on the decision making authority and level of staff in meetings. The **meeting aims and objectives** should be clearly stated before the meeting using language that can be understood by all attendees - do not include none technical staff in technical meetings.

7.15 The **lines of support** need to be clearly defined and agreed before the project is handed over to the live service. It is recommended that a failure mode, cause and effect analysis is performed, with each failure then being analysed to define the corrective action to be taken at the point of failure and post failure.

7.16 Ensure that any contracts for design and development work with suppliers clearly specify an acceptable position in relation to the **Intellectual Property Rights** of the delivered solution.

7.17 It is absolutely imperative that the Central IT Team be involved within all **ICT system procurement**, to ensure that operational ICT is aligned with Strategic ICT.

Technical

7.18 During the design phase it is important to gather as much information on **how the connection to the back office system operates** and is configured. This is best approached with a detailed technical review with the CSIS designer and back office system technical consultancy. All system assumptions should be verified.

7.19 **Back office applications should meet our technological standards.** Although the integration with systems not meeting these standards is possible, it introduces significant quality issues which can only be resolved by additional work. The work required for the small files can be up to a factor of 10 times extra development time.

7.20 **Interfaces should be web-services or services based** preferably with Microsoft Operations Manager 2005 instrumentation. Flare again has demonstrated that client applications have a support and service quality impact, the interface routes are poorly coded and have to run in a client session. All of this had a high operational overhead.

7.21 Two versions of each form are required one live and one test. In hindsight an **alternative means of configuring the forms** might have been better and should be considered for future development.

7.23 BizTalk exports XML with hidden characters to denote file is **unicode and these had to be removed** with a pipeline to be imported into Flare. This was not identified during the design stage of the project.

7.24 **XML namespaces caused a problem** when receiving XML from Flare and required re-work. XML namespaces also caused a problem with InfoPath when re-submitting a form to BizTalk.

7.25 **InfoPath forms are slow to load where multiple web services are called** and were replaced with static data within the form. This will create a deployment issue as more forms are deployed.

7.26 **Availability of Development, Test and Live environments** at the beginning of deployment would have saved time.

7.27 Creating MSI files to **deploy InfoPath forms locally** remains a problem because fully trusted forms are required. Please note - digital certificates are not an option.

7.28 **Configuring BizTalk to send e-mails** took time due to the security limitations imposed when sending data through the Council's internet security.

7.29 There is a **need for a corporate records management and process workflow solution** to be able to fully automate and integrate front and back office processes efficiently and securely.

Business

7.30 Initially it was felt that the knowledge and skills held by call handling staff relating to a specific area would be difficult to transfer. However this does not appear to have been the case. **Adequate scripting** appears to show that calls can be effectively handled following a relatively short training period.

7.31 **Communication with existing staff** likely to be affected by the change process is essential.

7.32 **Capacity has to be built into change process** to allow key members of staff to adequately contribute.

7.33 Implementing specific changes to meet the operation of Derby Direct also **require enhanced back office systems** -i.e. new technology - that needs to be developed at the same pace if service delivery is to be improved.

7.34 Services such as Pest Control where there are **large numbers of customer contacts but little technical information** required lend themselves more readily to CSIS.

7.35 **Increased access is likely to create increased demand**. Resources need to be put in place to allow the service to meet this demand to prevent customer dissatisfaction and potentially increased waiting times for visits.

Customer Service

7.36 The **scripting process can be streamlined**. From our experience with customers throughout the pilot, there is no need for precise scripting. At the outset more guidance from service experts on what information is required from customers and how to ask for it would be helpful. The scripts are useful as a training tool but become almost obsolete as operators become more experienced.

7.37 **Staff training can be compressed** to three days of coaching, skill building and learning by observation.

7.38 CSIS staff found the **time spent in the field with the service invaluable** to gather knowledge and understanding of what the officers in the field do at the end of the business process and customer experience. This should be regarded as best practice and be factored in to all projects for services transferring into Derby Direct.

7.39 **Building a relationship with the service professionals** helps to make the transition of services into the Contact Centre smoother and more amicable. This is very much down to the interpersonal skills on both sides and emphasises how important we get this right.

7.40 The way in which we market and promote the transfer of services into Derby Direct needs to be very carefully managed. The communication of details needs to be controlled and service managers need to be **keeping their staff informed and updated** as the process progresses. There have been instances in the pilot where we could have done better.

7.41 **Demonstrations to interested parties need to be planned** out to ensure that larger groups are targeted to reduce the number of smaller group demonstrations. The demonstrations would be more effective if given using a projector in a meeting room rather than in a live environment. This would allow all parties to see clearly and improve overall understanding – we will make arrangements for this to happen in future.

7.42 Thus far, the knowledge and understanding of CSIS frontline delivery is held within a small number of staff - six. Only two of these are DCC employees and only one has a detailed knowledge – the Customer Services Programme Manager. As things stand this is a risk. As CSIS moves on, the **transfer of CSIS skills to other Derby direct staff** needs to be put in place.

7.43 A large amount has been learnt about the management of a customer relationship management system implementation. **The Council has a fully functioning demonstration system** that integrates professional and technical software systems to the MSCRM system with links to LLPG, BizTalk etc. This is well beyond the original 'proof of concept' and will allow us to 'show case' the benefits of MSCRM to other departments. In addition, the 'proof of concept' project has given us a proper understanding of how to effectively migrate service department's front office functions to the customer Contact Centre in the future.

7.44 The lessons taken from the service migrated into CSIS need to feed into the **evaluation and selection process** for future CSIS service migrations.

8 New Service process framework

Process flow

8.1 There is a clear process model that should be adopted when migrating services into CSIS, for both council processes and the City wide approach, all being overseen with good project management practice.

8.2 The process flow should take the following order:

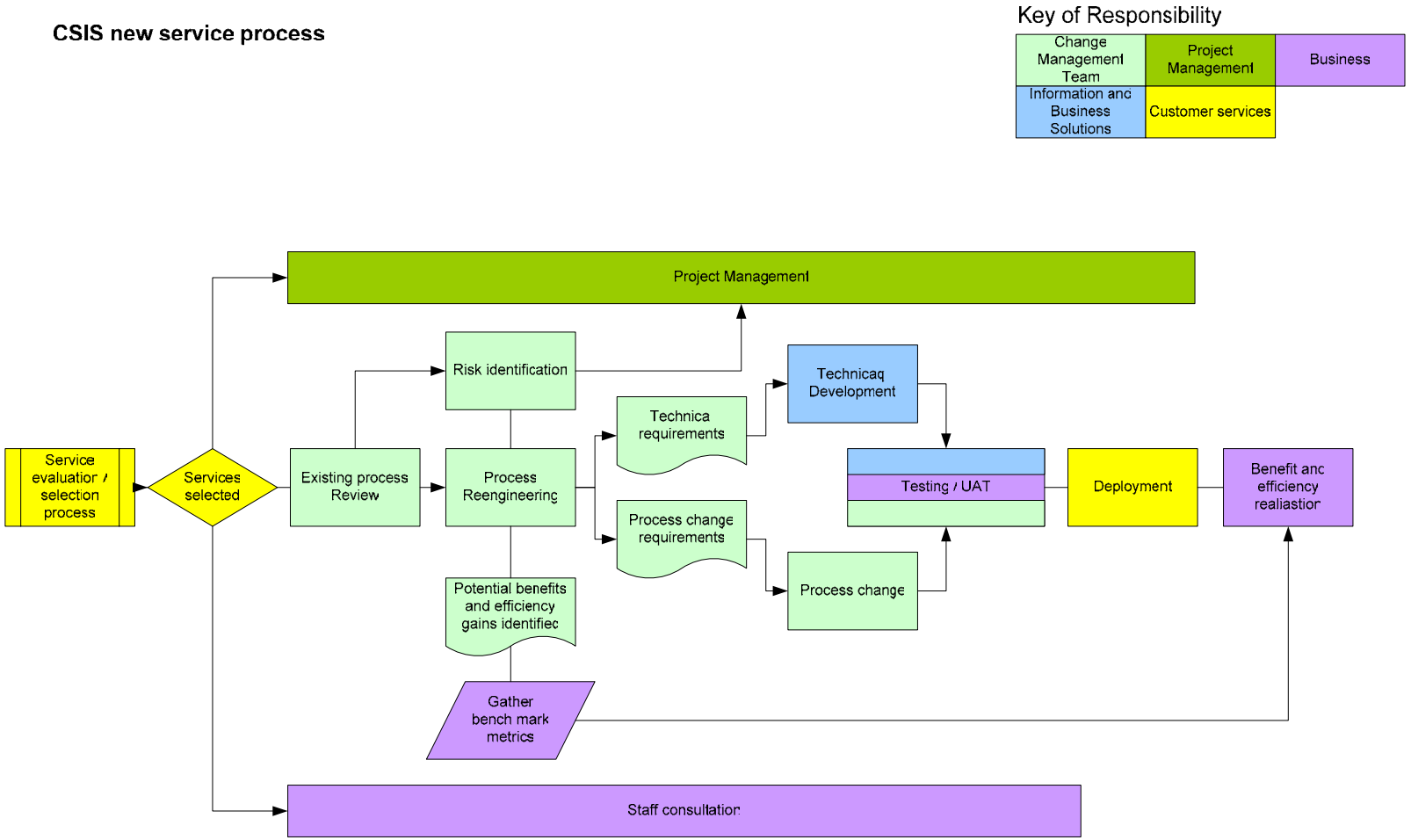
- identify the service areas for CSIS integrated services delivery
- evaluate the service area back office systems for fitness for BPR and integration

- then identify processes, gather metrics and conduct Business Process Reengineering on the identified processes
- instigate change management programme:
  a. process change track
  b. technical delivery track
  c. staff consultation track.
- estimating then validating post CSIS metrics.

Figure 2 demonstrates the model and responsibilities for new service migration into CSIS.

Figure 2: Responsibilities for new service model

CSIS new service process



Prioritising service migration

8.3 Prioritisation should always be driven by business need, but there remains a role for input from a clear technical evaluation of …

- The back office business system lifecycle, for example deep integration with the present financial management system, where it is known that the system has a lifetime to April 2007, and little of the integration work would be reusable when the system is replaced.
- The 'degree of fit' of the back office system with the architectural framework and with integration technology in general to determine the likely costs and quality of technical delivery of the solution. The Flare integration demonstrated the difficulty in estimating, coding and delivering a solution which is robust in practice, but where the back end system architecture is so poorly positioned.
- Ownership and security classification of front and back office systems - the security classification of the front office must be aligned with the process and back office systems – e.g. Social Services business processes may be dependant upon access to N3 to exchange information with other care providers, and as such have intrinsic requirements for strong authentication, network isolation and security policy change control that might not be met by the front office systems.
- The cost of back office integration support – e.g. the Swift system in Social Services employs business process database API calls for which the vendor, Anite, make very significant charges.

Estimating service migration

Formatted: Font: 12 pt, Not Italic, Not Highlight

Contact centre access

8.4 Gather metrics for the types and numbers of service access requests to determine call handling capacity requirements.

8.5 Determine resources and utilisation within the contact centre in terms of contact handling capacity and staff resources.

Design and development

8.6 Determine the skills resources required for the front to back office integration with particular regard to the architecture and integration support of the back office system.

8.7 Determine the appropriate estimating model for the back office integration. The older technologies such as Flare using 'extract, transform and load' – ETL - lend themselves to function-point analysis. Whereas API based integrations such as Swift using a database or application API may employ function point analysis.

8.8 The CSIS front-office systems are GUI and Services Orientated using BizTalk orchestrations, pipelines and direct web-services calls from InfoPath for which there are few accurate estimating models. Therefore metrics appropriate to the in-house or partner development resources must be determined.

Formatted: Not Highlight

Integration

8.9 Each integration type requires roughly the same functionality and has the same number of function points. An older type of software language on which many of our applications are based takes approximately 1hour 20 minutes per function point if working with up to 50 function points, as we expect our integrations will be. By using a modern day software language this development work can be reduced by up to an hour per function point.

8.10 Additional to this if the older type of software language does not support modern day file handling, then you have to multiply by a factor of about 10, increasing it to 13 hours for each function point.

8.11 Based on this a hypothetical integration with 5 function points will take up to 8 days to write and test using the older type of software language, whereas the modern day equivalent takes under 2 hours.

9 Strategic IT Framework

Strategic IT Framework and how / why CSIS fits

9.1 We are now in a technology aligned age, where the primary means of managing and delivering information requires an understanding of technology that goes beyond the implementation of stand alone applications. Inherent within this sea change is the requirement for organizations to embrace the fundamental shift in skills and processes required to become skilled Information Managers; to promote technological strategy from the background role of enablement, to the frontline role as a contributor to the initiation of change.

9.2 In this new age, the architecture of an organization's strategic IT framework becomes increasingly important in providing a sustainable base on which to develop service delivery.

9.3 A strategic framework not only rationalizes the delivery and administration of our IT capability, it also enables the sharing of information between multiple applications and multiple organizations, without incurring the high cost of proprietary, customised links.

9.4 Derby City Council is becoming widely recognized in the UK as delivering the strategic model upon which to deliver public sector IT. We are referred to by the Society of IT Managers –SOCITM - to be the

sole local government case study where corporate IT infrastructure has delivered proven business transformation.

9.5 The benefits of our investment mean that we are developing generic capabilities that greatly reduce the long term cost of ownership of the solutions required to meet our e-Government objectives. It will also facilitate an increase in the speed at which we can deliver applications in support of new processes and services. However, this longer term view of technological strategy does mean that the implementation of some 'egovernment' applications were delayed until we had the appropriate building blocks in place.

Example:

- *Our remote connectivity solution, based on exploiting our core infrastructure investment, provides a generic, secure remote and mobile working capability, whilst reducing our communications costs. This means that we are able to add mobile and home workers onto our networks, without incurring significant additional infrastructure costs. Many local authorities are incurring significant increases in their communications costs, as they implement proprietary connectivity modules for individual applications.*

9.6 External pressures and initiatives, particularly from central government, and the provision of external funding mechanisms with their associated constraints or artificial timescales and targets, can have the effect of distorting local authority IT strategies. These pressures can push us towards the implementation of 'tick box' solutions with little regard to their long-term sustainability.

9.7 Whilst the appeal of a 'quick-fix' solution to meet a specific objective may be alluring, if its implementation causes significant issues for integration that prejudice the achievement of our longer term ambitions, then any short-term benefits are quickly lost.

9.8 In short, technological strategies drive the long-term cost of our business solutions.

10 Partnership evaluation

10.1 As part of the Derbyshire e-Government Partnership we were involved in a review and tender process to select an appropriate CRM solution. The tender process reviewed eight of the leading CRM products, with the final decision being in favour of a 'Front Office' CRM solution supplied by Northgate. However it soon became clear that their proposed solution did not fully align with the strategic framework approach that we had adopted.

10.2 Whilst CRM was a required component of electronic service delivery - ESD - for our 2005 targets, the Partnership decision was being driven by an artificially short timescale that didn't meet any particular DCC requirement. There was no reason to assume that in not choosing the Northgate solution, we would somehow risk not meeting our targets. Since the Northgate solution would not be part of our longer term strategy, it can be argued that, rather than being an opportunity, its draw on resources may itself substantially threaten our business objectives.

10.3 The nature of CRM is that the financial benefit of the initial pilot system will be massively overshadowed by the longer term costs of development. As CRM is likely to be the most significant application that Derby will implement in the foreseeable future, it is important that any pilot of CRM is done in such a way as to be capable of delivering experience relevant to a longer-term solution.

10.4 Choosing a solution that fits our strategy has a significant impact on the future cost of delivering customer services. The Northgate solution did not match our strategy – Microsoft CRM does.

11 Conclusion

11.1 Following a pilot that has involved a huge team effort of the whole project team, stakeholders and our partners, together with a very thorough evaluation of the Microsoft CRM software and its impact on service delivery to our customers, the project board is absolutely satisfied that the 'proof of concept' is proven.

11.2 The evidence gathered and articulated in this business case tries to demonstrate the unanimous views of the board that the CSIS concept, supported by the Microsoft CRM software solution, will enable the delivery of the Council's vision and corporate plan priority of improving customer service in all council service areas.

12 Recommendations

12.1 The CSIS Proof of concept pilot using Microsoft Customer Relationship Management system is accepted as the corporate customer services solution, for Derby City Council and City wide customer management.

12.2 The CSIS solution is moved into and forms a key enabler of the customer services and 'Derby Direct' contact centre strategy.

12.3 Recognition is given to the requirement of a corporate Electronic Data Retrieval and Management System and Workflow solution, within the Strategic IT framework. Acceptance of such a solution will be subject to a separate business case.

12.4 Develop the relationship with Microsoft through the implementation of the next version of the Microsoft CRM software – version 3.

12.5 Investigate the opportunity to migrate corporately required customer services into CSIS e.g. change of address notification where customers should only be required to notify the Council once.