UNIVERSITY OF HERTFORDSHIRE

Faculty of Science, Technology and the Creative Arts

Modular BSc Honours in Information Technology

6COM0285 - Information Technology Project

Final Report

April 2012

"IS/IT Strategic Intent for Millennium 24/7 Taxis"

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Abstract

During this project, I will look to carry out a Business Critical Computing Decision (B.CCD) framework on a small to medium sized enterprise (SME) 'Millennium 24/7'. Following Steps 1-6 closely resulted in successfully completing the B.CCD, the main purpose of the project was to assess Millennium 24/7's IS/IT systems and provide them with a 'Strategic Intent' which they can use to enhance their companies IS/IT. The findings of the report are conveyed through the means of the B.CCD, containing steps 1-6.

The research section of the report will contain research to another methodology, Ward and Peppard (2002), the similarities to the B.CCD, why I chose the B.CCD and in the later part of the report I will discuss what I would do differently with the B.CCD if I was to carry out another one.

During the report I will talk about the project as a whole, how each step of the B.CCD was carried out, the main achievements of each step and how I went about collecting the necessary information required to complete each step successfully.

The Evaluation section of the report will consist of a critical appraisal of the project as a whole, the strength areas of the report, the weaknesses and anything that would be done differently if another project was undertaken.

Acknowledgement

I would like to express my appreciation towards Paul Wernick my project supervisor, for his consistent support during the project period, also for giving me the flexibility with project meetings and providing me with vital information which I required to carry out my project successfully, in addition the feedback and input I have received from Paul has been exceptional.

I would also like to thank all the other tutors at the University of Hertfordshire Computer Science faculty who dedicated their time in helping me with any academic issues, in addition my family and friends for having faith in me during this tough period.

The members of Millennium 24/7 deserve credit for their consistent devotion in order to ensure the project is completed on time and to a high standard, in particular to Jamil Ahmed for his consistent support throughout the project and devoting time from his busy schedule.

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Chapter 1: 1.1 Introduction to the Project

The aim of the project is to successfully carry out a Business Critical Computing Decisions framework for Millennium 24/7, from occasionally working at the company, I noticed that there is a need for improvement in the companies IS/IT strategy, the objectives that were set out in the detailed project proposal for the project are as following, I will talk about whether these were met or not later on in the evaluation section of the report;

- ➤ Complete a B.CCD framework with steps 1-6 for Millennium 24/7 Taxis. (Containing all deliverables from each step of the B.CCD and implement on Millennium 24/7)
- Ample any relevant design material for any proposed projects within the B.CCD (If the company wishes to adopt any project within the B.CCD they have the relevant design material to start implementing)
- Compare the B.CCD framework with other possible strategies available and draw a suitable evaluation. (Evaluate the B.CCD methodology in regards to the project and research other possible strategies)

1.2 Background to the Company

Millennium 24/7 is an independent taxi company which have been providing quality service to its customer from over 10 years. Millennium 24/7 has a professional obligation to ensure all customers are provided with excellent customer service and good value for money journeys.

The taxi company are thrilled to provide excellent customer service to its customers, and specialise in various fields in the travel industry. From providing good value for money bookings, to elegant and sophisticated journeys that encapsulate memories. (The different services provided by Millennium 24/7 are listed in ("See appendix, Chapter 10.1.6 Products List, page 40").

Millennium 24/7 are based in a football ground on Vauxhall Road in Hemel Hempstead, they have a reasonably sized office in the car park of the football ground which is a good attraction to business and benefits well from the pub and football ground located within walking distance. In total the company employs about 35 drivers and between 7-10 staff members depending on time of year ("See appendix, Chapter 10.1.5 Organisational chart, page 39").

The company was started in the new millennium and operate 24 hours a day, 7 days a week, hence the name Millennium 24/7. It has been over ten years since the company has been set-up and has four equal owners. Jamil Ahmed who is in charge of most day to day operations at the office, and organises staff rota's and deals with wages ("See appendix, Chapter 10.1.2 Functional Responsibilities & Roles page 32)"

As detailed earlier, the company benefits from the presence of the local pub and football ground, however apart from these attractions, Millennium 24/7 is one of the largest taxi service providing companies in Hemel Hempstead. Over the past ten years the company has grew steadily in size as

they started with just six drivers including the four owners, now they have around 35 drivers in total minus the four owners of the business.

For many years now the presence of websites and online bookings have become increasingly popular, however Millennium 24/7 have failed to fully grasp this potential, the current website for Millennium 24/7 is not up to scratch and in need of major development, they have also failed to acknowledge the growth in iPhone and Android apps and fallen behind their rivals.

Despite the below average website and lack of IT infrastructure, Millennium 24/7 pride themselves in top-quality customer service and support from all members at the business, thus managing to keep their repeat customer base as well as maintaining devoted and expert staff.

1.3 Introduction to the Report

<u>Literature Review</u>

During the literature review I have researched Ward and Peppard's strategic planning framework, describing the inputs and outputs to the strategic structure and distinguished any similarities between Ward and Peppard and the B.CCD.

In addition I have outlined why I have chosen the B.CCD methodology and what were the main reasons in me choosing the B.CCD approach.

Body - Steps 2 - 6

During the main body of the report, I will discuss each step of the B.CCD carried out in a lot more detail, the deliverables which I have produced for each specific step including a description where necessary, and how I went about completing each of the steps of the B.CCD.

Also I will discuss the fact finding methods which I had adopted in order to complete the specific steps of the B.CCD, for example the interviews and observations which I had carried out in the office workplace in order to complete the steps of the B.CCD competently.

Evaluation

During the evaluation phase of the report, I will reflect on the project as a whole and where the strengths and weaknesses lie in the project, also any specific improvements there are to be made if a similar project was to be undertaken in the future.

Furthermore how the project has affected me as a person, the things which I have learnt during the entire project process, I will go on to add if there is anything that would be tweaked to the B.CCD methodology if I was to undertake another project that will make the approach more efficient and easier to complete.

The final part of this section will talk about the client and what future work they can do in order to stay on top of the B.CCD and how they have benefited from the project altogether.

Bibliography

This section of the report will consist of all the different websites, articles, journals, books and e-books etc I have used, looked at and even taken inspiration from in my report.

Appendices

The appendix will contain all the supporting material to back up the report, for instance it will contain all the documentation and deliverables for steps 2-6 of the B.CCD, in addition to Steps 2-6 of the B.CCD, the interview notes which were used during the earlier stages of the project and supporting material such as Organisational chart, description of procedures, Product list etc. The main sections of the appendix are the deliverables for the B.CCD steps 2-6.

Chapter 2: 2.1 Literature Review

The B.CCD (Business Critical Computing Decision) framework is a good structure which can be adopted on small to medium sized enterprises (SME's). The framework conveys the crucial requirements for enhancing the overall performance and structure of the enterprise. Also the framework gives the user a better understanding of the value and relevance of the current uses of the IS/IT infrastructure within the enterprise.

The B.CCD is designed around the (PQM) structured approach which is also known as 'Process Quality Management'. The B.CCD is split into three phases which are combined together to give the user a better understanding on the IS/IT infrastructure of an enterprise, the three phases then contain the seven steps of the B.CCD divided into different phases, the three phases are;

2.2 Pre-workshop Activities

Before the workshop commences, the facilitators establish the need for the B.CCD and conduct different methods for them to gather information and provided a basis for the workshop. This is done in different forms for example interviewing individuals in the enterprise ranging from people that run day to day tasks at the enterprise, to higher management. The pre-workshop activities phase contains two steps of the B.CCD; they are listed below alongside their deliverables;

- 1. Establishing the need
 - Agreed Proposal
 - Plan of B.CCD work
 - Communication of Plan
- 2. Preparing for the workshop
 - Draft vision and statement of direction
 - Core competencies
 - Analysis of business activities
 - Key Issues
 - Draft evaluation of current IS/IT
 - IS/IT opportunities for the enterprise
 - Provisional business processes

2.3 Workshop Activities

The core of the B.CCD framework is the workshop activity, which is attended by the whole management team, from this phase of the framework the IS/IT strategic intent is derived alongside do-able action plans, and other crucial deliverables. This phase of the framework uses information gathered previously from the facilitators preceding the workshop. The workshop activities phase contain fours steps from the B.CCD and is where the majority of the analysing is carried out, the steps in this phase are;

- 3. Setting the Business Direction
 - Agreed vision & statement of direction
 - Critical Success Factors (CSF's)
- 4. Identifying priority business processes
 - Business Process/CSF Matrix
 - CSF/BP Matrix
- 5. Defining improvement projects
 - Business Process/IT Matrix
 - Improvement Projects
- 6. Producing the IS/IT strategy
 - IS/IT Strategic intent
 - Communication Process including content and frequency
 - Summary of Prioritised Improvement Projects
 - Do-able action plans

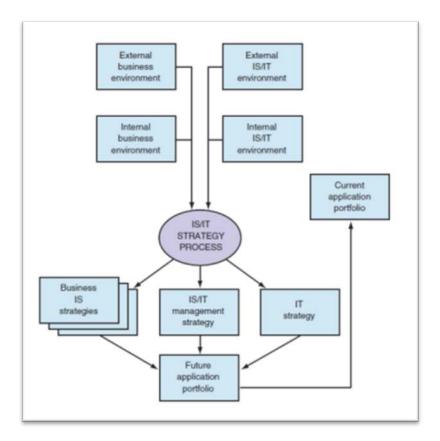
2.4 Post-workshop Activities

The final phase of the B.CCD framework is the post-workshop activities, in this phase the aim is to keep updated on the improvement projects adopted and the outcome from the IS/IT strategic intent, this can be done in different methods such as quarterly meetings with all the relevant people involved. In this phase, the final step of the B.CCD is carried out, Step 7; the deliverables in this step are as following;

- 7. Reviewing Progress
 - Updated plans and actions
 - Identified requirements for revisiting IS/IT priorities (micro viewpoint)
 - Updated IS/IT strategic intent (macro viewpoint)

During my project for Millennium 24/7 I have used the B.CCD information strategy framework, there are other information strategies which I had considered during the research phase of my project, the different information strategies which I had looked into were Ward and Peppard (2002), Strategic Information Systems (SIS) and Earls multiple methodology, however the only one which I had researched was Ward and Peppard. The name of the strategy Ward and Peppard is derived from the two founders of the strategic planning framework John Ward and Joe Peppard; Ward and Peppard (2002) provided a thorough investigation of strategic planning in their proposed IT strategy formulation and planning framework. The model which is shown in figure 1 has three different sectors; they are inputs, outputs and essential activities.

Figure 1



"The **inputs** to Ward and Peppard's strategic planning framework are as follows:

- **The internal business environment**: current business strategy, objectives, resources, processes, and the culture and values of the business.
- The external business environment: the economic, industrial, and competitive climate in which the organization operates.
- The internal IT environment: the current IT perspective in the business, its maturity, business coverage, and contribution to attainment of the organization's goals (e.g., cost reduction), skills, resources, and the technological infrastructure. The current application portfolio of existing systems and systems under development, or budgeted but not yet under way, is also part of the internal IT environment.
- **The external IT environment**: technology trends and opportunities and the use made of IT by others, especially customers, competitors, and suppliers.

The **outputs** to Ward and Peppard's strategic planning framework are:

- **IT management strategy**: the common elements of the strategy that apply throughout the organization, ensuring consistent policies where needed.
- Business IS strategy: how each unit or function will deploy IT in achieving its business objectives.

- Application portfolios. Alongside each of the business objectives are application portfolios to be developed for the business unit and business models, describing the information architectures of each unit. The portfolios may include how IT will be used at some future date to help the units achieve their objectives.
- IT strategy: policies and strategies for the management of technology and specialist resources"

Every strategic framework requires some sort of structure of approach and ideologies, Ward and Peppard have shortened the key features of the approach by the following;

- "• Flexible, modular, and able to pick up deliverables from earlier or parallel activities
- Emphasis on deliverables
- Clear checkpoints
- Recognition of the interactive and cyclic nature of the process
- Recognition of the importance of the human side of the process
- Simple diagramming tools"

(Ward, J., and J. Peppard 2002

.http://higheredbcs.wiley.com/legacy/college/turban/0471787124/add_mat/w13_3.pdf)

2.5 Similarities to B.CCD

The B.CCD framework which I carried out for Millennium 24/7 is very similar to Ward and Peppard's methodology in regards to inputs required to produce the IS/IT strategy. The majority of the business and IT inputs for Ward and Peppard's methodology are similar to the documents produced for Step 2 of the B.CCD; this is where the framework identifies the enterprise, the strengths, weaknesses, business processes etc.

The B.CCD conveys the inputs and outputs of the Ward and Peppard methodology in the forms of techniques such as SWOT & PESTLE analysis, the B.CCD also examines the issues related to the enterprise in a form of Porters 5 forces.

The external business environments inputs for Ward and Peppard "The economic, industrial, and competitive climate in which the organization operates" are similar to the B.CCD PESTLE analysis.

2.6 Why I chose the B.CCD

The Business Critical Computing Decisions framework is aimed to evaluate small to medium sized businesses; it can also be used for a small department of a large company, as Millennium 24/7 is a medium sized enterprise the B.CCD would benefit the company hugely.

The Business Critical Computing Decisions framework follows a set process, in total there are seven steps which need to be completed, in order to successfully complete the B.CCD you must completed the seven steps 7 simultaneously. This can be both an advantage and disadvantage to a company;

the advantage is that it allows the consultant to follow a set agenda created, following all the steps effectively will result in carrying out a successful project. The disadvantage of this type of methodology is that in order to move on to a specific step, you have to complete the previous one to it. For example if you wish to carry out some improvement projects, it would be advisable to start with Step 2 and carry out the tools and techniques recommended, then move up through steps 3 and 4 as well, the reason for this is that the deliverables from the previous step are used as inputs for the next.

The B.CCD documentation is fully comprehensible for a novice user and has good content which is easy to understand, and the documentation has good reasoning.

Another reason on to why I chose the B.CCD methodology was because I had experience in carrying out the methodology on a previous client, although it was for a fictional company and had provided a case study; I still had the necessary knowledge on carrying out each step of the B.CCD.

Ward and Peppard's methodology does not contain much documentation in contrast to the business critical computing decisions framework, the earlier stages of Ward and Peppard is relatively similar to the B.CCD however for example Step 4 of the B.CCD contains the CSF / BP matrix & the BP / CSF grid, this is not included in the Ward and Peppard methodology, this documentation gives the user an indication on to which business process is critical for improvement, from this information you can produce projects in the next step.

Chapter 3: Step 2 of the B.CCD

Step 2 of the B.CCD is preparing for the workshop; the aim of this step is to provide a starting point for the workshop, during this step a lot is defined and the current state of the company is put into perspective. Essential documents are produced during this step which aid the project throughout and some of the points made in this step are carried on throughout the entire B.CCD framework right the way up to Step 6, which is producing the actual IS/IT strategic intent for Millennium 24/7.

After meeting with the different members of Millennium 24/7, and carrying out the necessary interviews and observations, I was in a stage to start Step 2 of the B.CCD. The documents I produced during the information gathering stage as well as the interview notes, gave me a foundation to start producing the documents for Step 2.

The first objective was to complete a draft vision statement & draft statement of direction, from observing the company and interviewing the owners of Millennium 24/7, I was fairly familiar with where they wish to take the company in a few years' time, also how the business would be best described in its current state.

After completing the draft vision statement & draft statement of direction, I set about carrying out some tools & techniques such as a SWOT, PESTLE analysis and Porters 5 forces. From what I had learnt at my time at the office and speaking to members of Millennium 24/7, I was able to write down everyone's positives and concerns; these were later translated to strengths and weaknesses to use in the SWOT analysis. As I live in the Hemel Hempstead area, I' am aware of the competitiveness for business in the taxi industry in and around Hemel Hempstead. The other factors in the SWOT analysis were made out from speaking to the people involved in the business, observing the office workplace and from general knowledge of the Hertfordshire area.

The PESTLE analysis was difficult at first, as there was not much from my interview and observation notes that could cover this section entirely, so this is where I organised another meeting with Jamil Ahmed to discuss this situation, once again Jamil was very helpful and assisted me in completing this tool for the B.CCD successfully. A good conversation with Jamil resolved the issue, as we discussed more generic issues which related to the business such as the current political state of Hemel Hempstead in regards to taxi services, and the current form of the country's economic state, once again all this linked back to Millennium 24/7 and I was able to successfully include this in my PESTLE analysis.

When completing the draft evaluation of current IS/IT & Provisional list of business processes, a few obstacles had to be overcome during this phase of the step. As Millennium 24/7 had never analysed their business in this depth, it was a little tricky in determining which business processes should be included and which processes were at the core of the company. In spite of all this, once again long deliberation with Jamil Ahmed, resolved this issue and we were relatively happy with the business processes which we concluded.

The whole process of Step 2 was very frustrating as most of the documents required me contacting employees of the Millennium 24/7 workforce and acquiring additional information from them on a regular basis, despite the individuals being very co-operative, the times had to suit both parties,

taking into consideration my time at university and the employees working hours, this was a tough obstacle, nonetheless was resolved by communicating with them efficiently.

Most of the documents such as the vision statement and statement of direction had to be created from scratch, as Millennium 24/7 had never carried out a B.CCD on their company, or any other strategic management framework for that matter, the documents had to be produced and taken back to Millennium 24/7 on a regular basis to ensure they understood the nature and purpose of each document to ensure they were done correctly.

Once I had completed all the documents for Step 2 of the B.CCD, I went back to Millennium 24/7 to show the relevant individuals involved, to see whether the work I had produced was to satisfactory standard and that it met the requirements of the company. As I was running a little behind schedule, I was hoping to meet up with the relevant individuals as soon as possible and move on to the next step of the B.CCD, as it was the weekend, all the owners were out working and the office was also very busy, this halted my progress for a few days. However despite the setback I was able to rearrange my time and during the weekend I continued with my research and carrying out other tasks which would aid me in the rest of the B.CCD, in addition I was able to organise times with members of Millennium 24/7 early on during the next week.

I believe Step 2 was one of the longest stages for the entire B.CCD and one of the most time consuming; this is as it required a lot of communication time with Millennium 24/7 and research into possible opportunities for the enterprise, additional research was required, for instance into rules and regulations and how they would affect Millennium 24/7, despite the setbacks and time consumed, I believe the step was completed to a high standard.

Chapter 4: Step 3 of the B.CCD

Step 3 of the B.CCD is setting the business direction; the aim of this step is to reach an understanding on to where the company is heading, this is done through three simple documents which summarise the company's current state and where the company wish to end up in a few years' time. The documents are an agreed vision statement & agreed statement of direction, these run through from Step 2 of the B.CCD however are finalised here in Step 3.

The other major documents in Step 3 of the B.CCD is the Critical Success Factors (CSF's), the critical success factors can be used as objectives on to where the company wishes to see themselves within a given time period, these critical success factors define the rest of the B.CCD, and the remaining steps of the B.CCD are carried out working around these critical success factors. These can be viewed as areas for improvement, what the company require in order to meet the current market and the more critical issues where progress is a necessity.

The agreed vision statement & agreed statement of direction were not changed from Step 2, this is because I thought the initial vision statement and statement of direction which were produced in Step 2 best described the company, and the way in which the company is moving forward. Also from speaking to the owners of Millennium 24/7 in the initial information gathering stage of the project, the vision statement and statement of direction were pretty much clear and the direction of the company was determined in the early stages.

The final stage of Step 3 of the B.CCD was producing Critical Success Factors for Millennium 24/7, initially I produced nine critical success factors from the information I had gathered earlier from my observations and interviews. I had to consult all the owners of Millennium 24/7 in order to get everyone's viewpoint and to ensure everyone has a fair input, it was beneficial for me to hear everyone's concerns and suggested areas for improvement, this is so I could tweak the current critical success factors which I had and delete some which were not required and irrelevant.

After completing step 3 of the B.CCD, I returned to the owners of Millennium 24/7 to show the critical success factors and statements, all the owners were content with the success factors I had produced and were hoping to use them in the future for Millennium 24/7.

After discussions with the owners of Millennium 24/7 and a few of the main employees involved with the enterprise, I resulted with six strong critical success factors, these were the main areas of improvement for the company, and what Millennium 24/7 need to improve on if they are to be one of the leading taxi service providing companies in Hemel Hempstead and surrounding towns.

Figure 2: Critical Success Factors

- 1. We must integrate our business processes efficiently with our IT system, so it is easier to create higher management documents and fulfil daily duties.
- 2. We must ensure there is an on-site Manager at the office to deal with issues from the office employees and drivers.

- 3. We must ensure one staff member or more are trained to provide IT support in the office to eliminate communication time with Cordic.
- 4. We must ensure our staff members are fully trained and have all resources to complete their duties to a high standard.
- 5. We must ensure customer service is to a very high standard to maintain the company's reputation, and use this to attract more customers.
- 6. We must develop our relationship with current account clients and attract future clients to enhance the company's reputation and presence.

As you can see in Figure 2, the critical success factors are outlined, the first is to integrate the IT system with their business processes, if Millennium 24/7 could integrate their business processes with their IT system it would be a lot easier to produce management documents, this would save some vital time and it could utilised elsewhere.

The second critical success factor is to ensure there is an on-site manager to deal with queries from drivers and staff members, Millennium 24/7 used to have a full-time manager who used to deal with problems in the workplace, however he has now left. So most of the responsibilities are now left to Jamil Ahmed, one of the co-owners, employing a full-time manager would result in Jamil being able to devote his time to other activities in the business.

From speaking to almost everyone at Millennium 24/7, when there is a problem with the IT set-up it usually results in a call-out engineer from Cordic attending the workplace to resolve the issue, however sometime the problem may not even be major, that's why the third critical success factor is very important and it is vital Millennium 24/7 train some of their staff members, not only will it cut out the communication time with Cordic, but it will avoid the possibility of losing data and staff being unable to go about doing their daily duties etc.

A few justifications are given regarding the critical success factors; these show how important they are to ensuring the company moves forward and showing the companies weaknesses/areas of improvement.

The only problem with this step was ensuring everyone would meet up on time in the correct location, due to the nature of the critical success factors, it is usually best if everyone involved is sitting together discussing, from this a good solution can be produced and any problems resolved. As all the owners are relatively busy in their own respects, it was difficult to arrange appropriate times for everyone to meet up and discuss the critical success factors, the original time slot for the meeting was set for 30 minutes, however despite this time constraint, all the owners were very helpful and stayed for longer than anticipated to ensure everything was done correctly.

Chapter 5: Step 4 of the B.CCD

Step 4 of the B.CCD is linked heavily with the business processes proposed in Step 2, the aim of Step 4 is to identify and assess the business processes. Once each of the business processes have been identified, evaluation is required to prioritise the processes which need improvement.

The first deliverable for Step 4 of the B.CCD was to create a business process / critical success factor matrix (BP/CSF Matrix). The significance of this matrix was that it outlined all the business processes to determine how many critical success factors it met, in addition a quality rating is set alongside the business process to determine if the process required minimal or maximum improvement.

The second documentation for Step 4 was to create a Critical Success Factor / Business Process Grid (CSF/BP Grid). By using the information provided in the BP/CSF matrix, a CSF/BP grid could be created and completed successfully. Once again after the numbers of the business processes had been entered into the grid, they had to be tweaked, for example the 'big burner' processes which required a lot of effort were displayed in larger font and the bold font indicated most critical for improvement for the business.

When creating the matrix and grid for Step 4 of the B.CCD, it was relatively difficult, as I had to meet up with the employees of Millennium 24/7 on a regular basis to discuss whether everything was correct regarding their business processes. It was difficult at first during the interviews to fully understand how each process was conducted; all the information was given however I required extra time in the office to observe each process.

Initially it was very challenging to work out how much total people effort was required for each business process, this was because during my time at the office observing, some staff members were using loopholes in the process to get a specific job done, and completing some tasks using various shortcut techniques, this made it relatively difficult for me to work out the total people effort. However this problem was overcome when looking through the official handbook created by Millennium 24/7 which is given to a new staff member, the staff handbook indicated how much actual time is required to get a specific job done, I added up the relevant jobs which require to get a specific business process done, and entered that as total people effort. When facing Jamil Ahmed with the issue at hand, we went over the business processes and total people effort, the situation was resolved and Jami explained to me that staff members take shortcuts to complete a specific job because sometimes it gets quite busy and staff members need to get the job done so they can move on to their next.

The matrix required a quality rating for each of the business processes, the quality ratings ranged from 1-5, 1 being needing major improvement and 5 being needing no improvement, at first I was a little confused as to which processes were most critical and required most improvement, then from further discussions with Jamil Ahmed it became clear that some of the business processes were obsolete and required to be bought up to date, for example (refer to Appendix ___, Provisional list of Business processes) the seventh business process "Human Resources" has no IT involved what so ever, all the activities in this business process is done by hand, so the quality rating for this particular business process was 1.

The priority for each Business process is also entered into the Business Process / CSF matrix; however this is not determined until the CSF / BP grid. There are four categories to determine which business process requires most improvement, these are from A-D, A being most critical business process for improvement and D meaning less critical for improvement.

Chapter 6: Step 5 of the B.CCD

Step 5 of the B.CCD is defining improvement projects; in this step my role was to define some improvement projects that Millennium 24/7 can adopt in order to better their business in any way possible, whether the projects be related to the infrastructure set-up of the enterprise to any business advantage Millennium can get over their rivals.

The aim of Step 5 is to evaluate the current IS / IT within the enterprise, this is to determine which information systems in the company need to be addressed, and the IT in the company which needs to be introduced, upgraded or changed for any reason, this is usually done through improvement projects. Once again the improvements projects are linked back to Step 2 of the B.CCD, "IS/IT opportunities for the enterprise, Appendix ___" from these opportunities, possible projects can be derived.

During the proposed improvement projects different aspects are outlined, a suitable project name is given, the purpose and a description of the projects is also given, the different business process the project is going to affect, alongside other various aspects such as Size, Risk, Time Scale, Constraints of the project. The software which the project is going to utilise, a project sponsor is also selected and a person to lead the project, the final aspect of the improvement projects is to set out an initial plan which the projects is going to follow.

Initially I had seven projects for Millennium 24/7; some of these were not relevant, I returned to Millennium 24/7 to discuss the proposed projects, from speaking to the enterprise in the earlier stages, regarding possible opportunities the company can lead into and initiatives the company could take in order to overtake their competitors and become one of the leading taxi service providing companies in Hemel Hempstead and surrounding areas.

From speaking to Jamil Ahmed and a few other employees in the enterprise, we narrowed it down to five projects which consisted of four general and one infrastructure project. The projects were as following;

- Website Production
- Device Application
- Training & Development for Staff
- Adopting a direct marketing approach
- Upgrade IT infrastructure in workplace

The first project which was proposed was for Millennium 24/7 to create a website, this I believe would be very beneficial to the company as it would help them attract more customers, the customers have a sense of flexibility, where as they can book and pay for taxi journeys using one of the most popular forms of communication, the world wide web. Alongside increasing the customer base, the website will increase Millennium 24/7's online presence, from a worldwide survey which was conducted on the 31st of December 2011, it shows 52,731,209 of the UK's population have access to the internet; this is 84.1% of the country's population. Judging by the statistics, this shows that majority of the UK's population has access to the internet; therefore creating a website would be a viable option for Millennium 24/7. From speaking to Jamil Ahmed, he wishes to stay ahead of

his competitors, this is a key for any business I believe, so creating a website for the company will give Millennium 24/7 that competitive advantage over their competitors.

The second proposed project for Millennium 24/7 is to create a device application; the application will be able to run on android phones, iPhones, iPods and iPad's. From speaking to everyone at Millennium 24/7, this is a project which everyone was relatively happy with and encouraged it, the reason being as it is diverse and very different from what other companies do. Jamil Ahmed has expressed to me his desire of creating a device application from our very first meeting. Judging from local knowledge and information provided to me by Jamil Ahmed, there is only one taxi service providing company in Hemel Hempstead who have a device application for iPhones, Millennium 24/7 can overtake their rivals and produce an application which not only is available on apple products, but also android phones, this would appeal to a wider range of people and therefore better their chances of increasing customers.

The third project was evident when observing and interviewing different members of the Millennium 24/7 workforce, training and development is vital in any company and staff members require to be fully knowledgeable of the system they are operating, if they wish to fulfil their daily duties to a high standard. If Millennium 24/7 wishes to go ahead with the projects I have proposed, the website and device application will need relevant training for their staff members, also if the infrastructure project is adopted by Millennium, the system will somewhat change and once again the staff members will need to be trained again so they can adapt to the new system.

Marketing is a key in attracting new customers, if the customers don't know what you are offering; they can't buy into your services. This is where the fourth project comes into place, 'adopting a direct marketing approach', Millennium 24/7 can hire a company who can send out promotional offers, e-mails and text messages to individuals who are signed up to Millennium 24/7's portal. From speaking to individuals at the office and owners, they believe that marketing is a weak link in the current state of the enterprise.

The infrastructure project will consist of many minor improvements as one project, for example upgrading the office computers, upgrading the office operating system and Microsoft office suite. There is no major improvement required in the network; also the cPAQ system provided to them by Cordic is in good working order, so there are no improvements required there.

As stated earlier there were seven projects proposed, there are five which myself and Millennium 24/7 have agreed upon, the first of the projects which was refused was to 'expand the business to another location', this was a feasible project for the company as they could expand their business and increase brand awareness to surrounding towns. However after some deliberation this project was turned down due to funding issues, in addition Millennium 24/7 are relatively happy with the current size of the business and are not yet looking to expand in dimension.

The second project that was not carried forward was 'staff performance and pay review system'. This project consisted of monitoring staff members and their performance; I believed this would be a good project as Millennium 24/7 could assess their staff members, rewarding employees who have done extra work for the business and assessing staff members who have not been performing well. This project was not carried forward as the team at Millennium 24/7 thought this would cause

disagreements in the workplace and rather than everyone working together, they would work in competition, so therefore this project was also abandoned.

During this step, the only problem was defining each project, as I have never carried out a project of this scale, assigning each project with the relevant costing, size, risk and time scale were relatively tough. However this was overcome by secondary research which I had carried out during this step, for instance I got a quote on to how much a website would cost and also the device application with the relevant functionality which Millennium 24/7 require.

Chapter 7: Step 6 of the B.CCD

Step 6 of the B.CCD is "Producing the IS/IT Strategy", this is the main step of the business critical computing decisions framework. The aims of this step are to firstly produce a prioritised project summary table, the table shows in chronological order which project is to be completed first and so forth, the second aim of step 6 is to produce the strategic intent, the third element of this step is to produce a 'communication process summary' which determines how the information will be communicated with the staff members and other related members to the enterprise, the final section of step 6 was to produce an action plan for the projects, this explains how the projects will be conducted over the time period they have been assigned.

The first stride in completing the IS/IT strategic intent for Millennium 24/7 was to produce a prioritised project summary table, the aim of the project summary table is to prioritise the projects in a chronological order, to outline which projects are to be completed first and so forth. During completing the 'prioritised project summary' table for Millennium 24/7, the projects were prioritised quite easily as they all follow a chronological order. Firstly the infrastructure should be upgraded in the workplace to deal with the new technology that will be introduced, during the same time a website can be consulted with a suitable web designer and likewise with the production of the device application, once the device and website are completed, Millennium 24/7 can hire a direct marketing company who will in return advertise their company, so the device application and website can also be advertised. The final project which was left was the training & development, this was left last on the prioritised project summary table as all the other projects need to be completed before the staff can be trained and developed on the new infrastructure and technology introduced.

During this step the strategic intent is produced for the company, the significance of the strategic intent is that it elaborates on the projects which were proposed in Step 5. A full breakdown of the projects is given, going into detail on how each element of the project will be completed, for instance costing, when completing this phase for Millennium 24/7, it required a lot of secondary research into prices and quotes etc, how much training each staff member will need in order to ensure they fulfil their daily duties to a high standard.

In the first instance, I had a rough idea on to how much each project will cost, but bearing in mind Millennium 24/7's budget, the relevant equipment had to be selected carefully. During the strategic intent there are three sections, creating a policy statement, technical infrastructure and management framework. The policy statement is like an abstract for the strategic intent, a short paragraph is provided at the start of the intent explaining the role of IS/IT within the organisation.

During the technical infrastructure segment of the intent, I had to consider many aspects which will affect Millennium 24/7, for instance whether to build or buy new software, the standardisation of the personal computers and whether there were any changes required to the hardware & networks etc. During the Management framework of the report, the proposed projects are viewed from higher managements prospective; during this section different areas are considered such as investment and costing into the new technology, whether any of the projects will be outsourced, training and development of staff members to complete certain projects and development of systems / architecture etc.

The communication process summary was one of the phases in step 6 of the B.CCD; this was to determine how the communication from management to staff will take place in the workplace. From speaking to Jamil Ahmed, who is in charge of office meetings and so forth, he usually messages everyone from the office phone, a time and location for the meetings so that everyone can attend. The proposed communication process will be e-mail to every individual involved, as well as advertising the meeting/training exercises on the staff notice board; if for any reason a staff member is absent they will be contacted using the office phone.

Step 6 of the B.CCD was by far one of the longest steps in the entire process; the entire management framework was built up towards producing the strategic intent for Millennium 24/7, from agreeing to take on the project with Millennium 24/7, to carrying out background research and proposing projects, the strategic intent gives the entire B.CCD process its final conclusion, the entire procedure is concluded and the strategic intent gives the company a full background specification which they will need to know if they were to adopt the projects prosed.

Another challenge during this phase of the project was to determine how much investment to allocate to each project, as Jamil Ahmed did not wish to disclose much personal information from savings and money available to invest, a round figure was given by Jamil for each project, after producing Jamil with all the background information of possible costing, the issue was discussed and a solution was resolved for each project.

This problem grew from the pervious, as first I was unsure on how much Jamil wanted to allocate to each project, I produced him with two possible solutions for each project, one solution was what I felt each project required in order to take Millennium 24/7 past their rivals and competitors and the other solution was to the budget Jamil had allocated to each project. Once having close discussions with Jamil and the fellow owners, we discussed on a relative solution for each project, altering the budgets for each projects to ensure the final budget matched the one set by Millennium 24/7 management. The entire process was difficult at first as I was unable to produce the best possible solution to Millennium 24/7 due to the budget, however this is also understandable from the companies prospective, then after close deliberation with the management, the issue was resolved and a solution was reached.

Chapter 8: 8.1 Evaluation

8.2: What were the strengths of the project?

During the entire 12 weeks of the project process, from the start my communication skills have been relatively good with Millennium 24/7, there has been a good relationship with the business from the start as I' am an occasional worker at the office and work if required, however during the entire project process, I have not worked at the office much due to commitments to my studies. Knowing the people at the office however has been a significant benefit in completing the project; this is because it gave me the opportunity to talk freely with the employees during the interview & observation.

Researching has paid an integral part in completing the project successfully, from the very start of the project I have been researching different areas, for instance at the start of the project, researching into the company, establishing different areas of improvement for the company and possible opportunities using secondary research from the internet, this was done when completing Step 2 of the B.CCD SWOT analysis. As the project progressed and I got further into the B.CCD methodology, research was required to determine how much costing Millennium required if they were to complete certain projects successfully. Throughout the project I have utilised my research skills effectively, during the conclusion phase of the report, researching and evaluating different methodologies and comparing them to the B.CCD was another major strength in the project and report.

Having a supportive team in Millennium 24/7 was exceptional and I could not ask for a better company to work with, they were very co-operative and understanding in meetings, discussions and whilst I was carrying out my observations. As well as the employees being co-operative, the management were devoted in aiding me in carrying out a successful project. I received a sense of satisfaction when the B.CCD was completed as the owners of Millennium 24/7 told me that they were looking to start work on a few of the projects, and were happy with the strategic intent I had provided them with.

When completing the Detailed Project Proposal, various tasks and deliverables were set for the project, one was to complete the B.CCD for Millennium 24/7 containing steps 1 – 6, which resulted in producing the strategic intent, this objective was met effectively and Millennium 24/7 are fairly content with the outcome I have produced. Another objective set out in the DPP was to critically evaluate the B.CCD methodology and compare it to other various strategies available, also to justify why I chose the B.CCD over other available strategies, this objective was carried out during the literature review phase of the project and was completed successfully to an extent, however more time on research should have been spent in the project in order to broaden my comparison and produce an in depth evaluation.

During the completion of the B.CCD, I believe Step 2 was the strongest as it went into great depth from which I could analyse the business and possible opportunities for the enterprise effectively. Different tools and techniques such as the SWOT & PESTLE analysis and Porters 5 forces were carried out during Step 2 to assess the current situation of the enterprise. Despite Step 2 being the

strongest, I believe the B.CCD as a whole was completed successfully and a lot was gained from it for both myself and the company.

8.3 What were the weaknesses of the project?

During the project process, I believe I could have organised my time a little more effectively, I believe I took a little more time than anticipated to get started, for instance submitting the ethics application late resulted in me starting the interviews and observations late.

The ethics approval application was another setback in the project; I submitted the official ethics approval application to the ethics committee on the same day as the detailed project proposal deadline. Carol Organ from the ethics committee required some additional information from me including the application itself, she required a permission letter from Millennium 24/7 stating that I have the relevant authorisation to carry out my fact finding techniques at the workplace. The overall ethics approval process took over 2 weeks and this was a setback in my project, this resulted in rearranging my schedule I had initially produced, rather than waiting around for contact from Carol and the ethics committee, I took it upon myself to re-arrange my schedule and start working on gathering my research which I was going to use in my report, I started researching different strategic frameworks which would help me when completing the report.

Once the ethics application had been approved, I was in a position to start carrying out fact finding techniques with Millennium 24/7 and the members of staff at the workplace. During the initial stages I was confused as to what sort of questions I should ask the members of the company, I believe that I could have structured the interviews a little better to receive maximum results, however despite the poor preparation, the staff members were very helpful and dedicated time from outside their working hours to ensure I had the necessary information to carry out the project successfully.

8.4: What could be done differently if another project was undertaken?

As this was my first real life project of this scale, I believe it was a successful one, however there are a few things I would do differently if I was to undertake another project of this scope. For future projects I would definitely manage my time more effectively, I believe in this project for Millennium 24/7 I was able to manage my time effectively by re-arranging the schedule when needed and staying on top of the work; however I believe this can be done more efficiently in future projects.

As my organisational skills was a weakness in the project, this needs to be addressed and improved upon in future projects. Different organisational methods can be adopted for future projects if I wish to be organised at all times, for example having mini schedules within the main schedule could be a possibility, breaking down the main tasks into mini tasks so the workload does not feel like a great deal.

From completing the project for Millennium 24/7 I have realised that the time from the employers is very valuable and should not be wasted. As I have a mutual understanding with the members of Millennium 24/7 it was okay to take a little more time for interview preparations etc. However if I was to carry out a future project for an unknown company, I would require to be more organised,

for instance have interviews notes ready in good time, and prepare for the interview effectively, this is as the employers time is very valuable and should be used productively.

I believe I can use the skills which I have gained during this experience for future projects; the entire experience during this project has enabled me to discover new skills and improve my current ones. I have been able to manage a project of a large scale efficiently, and ensure that it was delivered on schedule and completed successfully.

8.5: What I have learnt in the process?

The main learning curve during the project was to handle a real life problem of this magnitude and to discover a relatively effective solution for a real life business, as I have never done a project of this scope before, initially it was difficult for me to analyse the business and the different factors in order to produce a proficient project. Although carrying out a Business critical computing decisions framework earlier in my studies on a case study was helpful, that specific piece of coursework was group orientated and consisted of five group members carrying out a B.CCD. However it did give me some foundation and background knowledge into the B.CCD, the project for Millennium 24/7 was completed independently and all the background information had to be gathered whereas in the case study it was provided beforehand.

During the project I have been able to discover new skills and improve upon my current ones, I have assessed my strengths and weaknesses during the project and areas for improvement, in addition what I can do differently in future projects with the skills I have acquired in this project. I have been able to improve on skills such as time management, organisational and researching skills etc. In addition I have ensured my communication skills have improved during this experience of the project; I have improved my communication skills through fact finding techniques such as the interviews and observations. Initially as described earlier I was unprepared for the interviews and took more time than necessary; however during the interviews process I was able to improve my communication and preparation skills by ensuring I was fully prepared for the interviews.

8.6: Future work for Millennium 24/7

During the project I have been able to complete the pre-workshop and workshop activity phases for Millennium 24/7, however the company require to stay on top of the project and follow step 7 closely if they wish to gain from the B.CCD. During Step 7 the aim for Millennium 24/7 is to keep updated on the improvement projects adopted and the outcome from the IS/IT strategic intent. In Step 6 of the B.CCD, in the communication process I had suggested regular meetings between higher management to discuss the projects adopted and any problems consequently. As well as regular meetings between management, they can compile short reports discussing any issues which need to be addressed; this would be valuable for the enterprise as they can keep it as a record and refer back to it if necessary.

If Millennium 24/7 are to adopt any of the improvement projects proposed in Step 5 of the B.CCD, they will need to study the strategic intent closely and the action plan produced in Step 6 of the B.CCD. The action plan provides Millennium 24/7 with a schedule for the improvement projects, a

step by step on the actions they need to perform if they are to carry out the proposed projects effectively.

One of the objectives which was left out was to "Ample any relevant design material for any proposed projects within the B.CCD (If the company wishes to adopt any project within the B.CCD they have the relevant design material to start implementing)". This objective was not implemented as I didn't not see the need to carry out the designs for the website and application projects, this is because if Millennium 24/7 get work done professionally, the web designing team will carry out the design and implementation phases independently.

8.7: How the B.CCD benefited Millennium 24/7?

I believe Millennium 24/7 have benefited from the project profoundly, they have a foundation to build upon on their business and gain a competitive advantage over their rivals. The strategic intent which I have provided for Millennium 24/7 during Step 6 of the B.CCD outlines the improvement projects and how they are to go about improving there IS/IT systems. From speaking to the owners of Millennium 24/7 they are relatively happy with the project as a whole and the work which I have carried out for them. They are excited by the prospects of the B.CCD and the positive impact it will have on the company if followed correctly.

Millennium 24/7 have good solid improvement projects which can be used to improve the business, the improvement projects which were proposed will help in improving various sections of the enterprise, in particular the most critical IS/IT systems. The improvement projects will help Millennium 24/7 to eliminate or develop the weak IS/IT systems in the business, this will help the company gain a competitive advantage over their rivals, also increase their customer base by attracting new customers. Proposed projects such as the website and infrastructure project have cost estimations which will help Millennium 24/7 to break down their investments and capitalise in the projects they require most. Jamil Ahmed has already expressed to me his appreciation for carrying out a successful project, and has decided to implement on a few of the projects immediately.

8.8: What I would add or change to the B.CCD in the future?

Looking back at the project, at the time the B.CCD seemed like the best option as it ticked all the criteria's for a small to medium sized enterprise like Millennium 24/7. On comparison to other methodologies the B.CCD seemed to be the one which followed the best structure for a company like Millennium 24/7 and their requirements.

I would slightly alter the B.CCD though in future projects, as well as carrying out tools and techniques such as the SWOT and PESTLE analysis, another input could be added to Step 2 in order to ensure that all areas are covered "The internal IT environment: the current IT perspective in the business, its maturity, business coverage, and contribution to attainment of the organization's goals (e.g., cost reduction), skills, resources, and the technological infrastructure." This is covered slightly in the B.CCD however can be done more efficiently and consequently obtain more information about the companies IS and IT set-up.

Although this input would be added to the B.CCD in future projects, overall the B.CCD is the best type of methodology for a small to medium sized enterprise; in addition the information strategy I researched during this project (Ward and Peppard 2002) is very similar to the B.CCD in terms of inputs and outputs.

Chapter 9: Bibliography

Europe Internet Usage Stats Facebook and Population Statistics. 2012. Europe Internet Usage Stats Facebook and Population Statistics. [ONLINE] Available at:

http://www.internetworldstats.com/stats4.htm#europe. [Accessed 26 March 2012].

How much will a professional website cost from norfolk web design company creospace | Norfolk-web-marketing-blog. 2012. *How much will a professional website cost from norfolk web design company creospace | Norfolk-web-marketing-blog.* [ONLINE] Available at: http://www.creospace.co.uk/blog/2008/04/how-much-should-a-professional-website-cost-me/. [Accessed 28 March 2012].

Ward, J., and J. Peppard, Strategic Planning for Information Systems, 3rd ed. New York: Wiley, Electronic Source available at:

.http://higheredbcs.wiley.com/legacy/college/turban/0471787124/add_mat/w13_3.pdf [Accessed 13 February 2012].

MIS - Chapter 09 - IT Planning and Business Process Redesign. 2012. *MIS - Chapter 09 - IT Planning and Business Process Redesign*. [ONLINE] Available at: http://www.scribd.com/doc/7047262/MIS-Chapter-09-IT-Planning-and-Business-Process-Redesign. [Accessed 16 March 2012].

Strategic Planning for Information Systems - John Ward, Joe Peppard - Google Books. 2012. Strategic Planning for Information Systems - John Ward, Joe Peppard - Google Books. [ONLINE] Available at: http://books.google.co.uk/books?hl=en&lr=&id=Y-djKt6DaV8C&oi=fnd&pg=PR5&dq=Ward+and+Peppard&ots=oFrdSdz5Ir&sig=EAXS93dEcE9F3T-9C4UhfyYXFaM#v=onepage&q=Ward%20and%20Peppard&f=false. [Accessed 05 March 2012].

Bennett, Berenbaum, Hinton, Tagg, Ward, J.B, R.B, P.H, C.T, B.K.W, 1997. B.CCD: A framework to enable SME's to make Business Critical Decisions. *Division of Computer Science*, [Online]. No.273, 1 - 10. Available at: https://uhra.herts.ac.uk/dspace/bitstream/2299/5132/1/CSTR%20273.pdf [Accessed 13 February 2012].

Chapter 10: Appendices

Chapter 10.1: Resources

Chapter 10.1.1: Description of Procedures

An outline description of Millennium 24/7's workflow;

Customer Enquiry

Customer may visit the Millennium 24/7 office; contact the office by telephone or e-mail or an enquiry form through the company's website.

Office Controller

An operator or controller from the office will receive the enquiry from the customer and investigate possible travel options for the customers, the operator/controller will do this through the Cordic system which is installed on all the computer systems in the office.

If it is a short journey the controller/operator will give the customer a rough estimation on to how much the journey will be. If it is a long distance journey, the controller/operator will give the customer a quote, this will be a provisional quote depending on the information supplied by the customer, if anything is changed or added to the journey, this may affect the price of the quote, this is done on interaction with the customer.

Taxi Booking

On communication with the customer, if they decide to book the taxi journey, this is then keyed into the Cordic system which produced the booking record.

The booking record is then stored on to the Cordic Database, the next job for the controller is to distribute the booking to an appropriate driver. There are different attributes the controller has to be aware of before allocating the job to a specific driver, for example if the booking is for a 5 seater taxi, the controller needs to ensure the right vehicle arrives at the pick-up destination.

Accounts Received (Money In)

If the customer pays for their taxi by cash, this is dealt with between the driver and the customer. If the customer pays for their journey by credit/debit card, this is done through the office, the details are processed through the card machine and a separate booking is created and entered into the Cordic database.

Booking Confirmation

Details of confirmed bookings are communicated to the customer by e-mail, mail or phone call, whichever is preferred by the customer.

Chapter 10.1.2: Functional Responsibilities & Roles

The company have just the one office located in Hemel Hempstead's football club, and all bookings are made and distributed through the office phones and computers. The taxi company employs about 35 drivers, alongside drivers about 7-10 staff members depending on time of year. During busy periods for example Christmas, the office needs to be occupied by more staff members to deal with the amount of phone calls and customer enquiries.

Jamil Ahmed - Owner / Manager

- Web Site Content
- Marketing
- Personnel & Administration

Mahmood ul Hassan - Co-owner / Office maintenance

- Office Maintenance
- Repairing and purchasing office equipment

Tabs - Accounts / IT Management / Full-time Evening Controller

- IT Management
- Accounts
- Billing
- Settle outstanding balances with Millennium 24/7's Accounts

Qasim Qayani – Full-time Day Controller

- Collect weekly rents from Drivers
- Sort school runs appropriately with relevant escorts and vehicles

Controllers

- Answering phone calls and taking bookings
- Dealing with customer enquiries and providing good customer service & support
- Distributing bookings to drivers and ensuring all tasks are done suitably

Operators

- Answering phone calls and taking bookings
- Dealing with customer enquiries and providing good customer service & support

Chapter 10.1.3: Interviews

Jamil Ahmed - Owner

Jamil is in charge of many activities at Millennium 24/7 and has the leading role of managing the office amongst the other 3 owners.

From speaking to Jamil Ahmed, he has a very clear vision on where he wishes to take the company, and admits that the lack of marketing tools in the company need to be addressed.

Currently Millennium 24/7 have the following marketing tools;

- Business cards
- Posters
- Website (Not fully functional)

Jamil believes that the ageing computers and software in the office are preventing Millennium from producing good quality advertising material; the old computers in the office are unable to run the latest DTP and Adobe software such as Publisher and Photoshop.

Jamil is also in charge of management of staff and administrative issues, he will also manage day to day HR issues as well as personal issues including staff rota's, holidays and pay and training of new staff members. Almost all of the owners decide towards recruitment of new individuals and likewise with dismissals or redundancy.

As well as owning the company, the four owners work for it, they are also taxi drivers, so Jamil does not spend much time in the office looking after day to day activities, and this is an area for concern for Jamil taking the company forward.

Most of the companies work is from local hotels, restaurants and pubs, posters are up in these areas to make customers aware that they will receive a 10% discount if they book with Millennium 24/7, however due to the lack of IT & advertising skills these posters are over-seen by customers. Despite the work from the pubs and hotels etc, a big opportunity could arise by creating a fully-functional company website which provides customers with detailed pricing and different types of vehicles available.

A high percentage of the company's business is from repeat customers; a good method of keeping the customers updated and attracting new customers is by contacting them through newsletters, direct marketing, mail-shots etc.

Mahmood ul Hassan – Co-owner

Mahmood ul Hassan is another owner of Millennium 24/7, he is mostly in charge of many maintenance work in the office.

Mahmood ul Hassan agrees with Jamil and believes that the lack of Marketing and IT facilities are stopping Millennium 24/7 from being the leading taxi service companies in Hemel Hempstead. Mahmood believes that you need to have a competent IS/IT set-up and good marketing & advertising tools to attract the general public in Hemel Hempstead.

The current ageing software and computers do not have the capability to perform high quality marketing and advertising tools, this is lacking in the current IT set-up and Mahmood believes that this needs to be addressed and the sooner the better.

Other supplier packages are available other than cPAQ however this is the one we are currently using and believe it is doing a good job. Most companies around the Hemel Hempstead area are also using cPAQ as it is easy to use and good for the operators.

Mahmood maintains the office making regular trips looking after any maintenance work which needs to be done; although this is the role of all the owners, however Mahmood is the one making regular trips to the office.

Mahmood believes that the younger audience is a potential for Millennium 24/7 on weekends, and interacting with them by the means of effective direct marketing and social networking sites is essential.

Zulfigar Ali - Co-owner

Zulfiqar is also one of four owners at Millennium 24/7; all decisions are made jointly by the owners and have equal rights on the company.

Zulfiqar is well connected in the industry and can interact with other taxi companies, finding out what offers (if any) they are promoting etc and general concerns in the taxi industry around Hemel Hempstead.

Millennium 24/7 have a loyal workforce who are both experienced and devoted to their jobs at the taxi firm, some information like customer details and product information may be held by individual members at the office, so it is essential for the company to hold onto all their staff members, this is because if they move to another taxi firm or leave for whatever reason, the vital information may go with the staff member and possibly used elsewhere.

Training and developing new staff can cost the company a bit of money, so this is another reason why Millennium 24/7 would love to hold onto their loyal staff.

Zulfiqar also believes that having no manager at the firm is a drawback, they did have one however he left, so appointing another one in good time is essential to the company's success.

<u>Tabs – Accounts / IT Management / Full-time Evening Controller</u>

Tabs has been working for Millennium 24/7 since it was established over 10 years ago, so is a very important asset to the company.

Tabs has multiple responsibilities at the office, from dealing with office accounts, to IT support and at the same time working as a full time evening controller.

Tabs uses the cPAQ system to draw up the companies accounts, he collects driver rents on a weekly basis and records this information in the companies accounts book, this is done manually and is not computer based.

The accounts which the company have are dealt with by Tabs, if there are any problems on any side, Tabs is usually resolving this issue. Well-known clients such as Holiday Inn usually pay for their accounts on a monthly basis. Tabs has to ensure all the information and fares are correct before sending the invoice over to Holiday Inn. Once Holiday Inn confirm the balance of the invoice, they send over the amount and pay for the invoice.

Once the accounts are received at the end of every month, each driver comes to collect their cheques from the office for the account work they have done. Although Jamil Ahmed writes each driver their cheque, Tabs produces each driver an accounts sheet using information extracted from the cPAQ system, the accounts sheet displays the amount of account work a driver has done over the past month, and how much they will be getting paid for each fare, once this is confirmed by all parties, Millennium 24/7 write a cheque for the driver.

Tabs is concerned that the cPAQ system is not connected to any accounts producing system, so if any accounting information needs to be created, all the information requires to be re-keyed into Excel. cPAQ is very limited in terms of creating management reports and any other marketing documents, if these are to be created; information needs to be extracted from the cPAQ system.

IT Support for the cPAQ system is currently provided by Cordic, who are also the owners of the system. They provide phone and e-mail support to all their clients on how to resolve any issues with the system. The response time from Cordic is usually good given they have a large team of experienced and professional staff, however it would be great to have an employee at Millennium 24/7 who can also provide IT Support, this would cut out the communication time.

As well as dealing with the company's accounts and IT support, Tabs is also a full-time evening controller and has been with the company for over 10 years. He started off using the radio and now believes the computer based system is so much easier for everyone including the drivers as they have PDA's which outline all the information they need to know.

Qasim Qayani - Full-time Day Controller

Qasim Qayani has been working for Millennium 24/7 for a few years now; he started off as a part time night shift operator and now works as a full time day time controller.

Qasim has a few roles and responsibilities at Millennium 24/7, the first of which is to ensure all bookings are taken and distributed to the correct drivers appropriately.

As well as booking and distributing jobs, Qasim deals with school runs and allocating relevant drivers and escorts. Regular drivers and escorts are usually allocated to collect certain students and take them to their relevant schools, however if for any reason any of these drivers or escorts cannot fulfil their roles on a specific day, it is the responsibility of Qasim to find a suitable replacement.

Drivers are split into two categories, morning and night drivers, Tabs deals with the weekly rents from drivers who work evening/night shifts as he is the main evening controller, Qasim on the other hand collects rent from drivers who work the morning/day shift. The procedure is the same; it is manual and recorded in the company's accounts book once a driver pays his weekly rent to the company.

<u>Ibrar - Weekend Controller</u>

Ibrar has been working for Millennium 24/7 for over 5 years now and has become another loyal and experienced staff member. His main working patterns are Friday and Saturday, usually in the office during the busiest times, this is because he is very quick and accurate on the phones and computer system, taking bookings and distributing them to the appropriate driver's accordingly, he also deals with any customer/driver enquiries or problems.

Ibrar has mostly used the computer based system and believes that it is very user friendly, he can multiple task, by taking a booking and distributing another at the same time. "There is so much you can do, track a driver if a job is getting delayed, search for any booking on the computer system for the previous couple of years, and also look at future bookings".

Whilst speaking to Ibrar he also adds "The system is very proficient, however I have a friend working for another taxi firm, and he said when a customer rings, their system identifies the exact location of the customer", this could be a potential system Millennium 24/7 can adopt in order to make taking bookings more efficient for staff members.

Rajab Ahmed - Part-time Operator

Rajab is a newly trained operator and has been working for the company for about a month now. He is not at the level of expertise as some of the controllers however is learning steadily.

Rajab states that "the system is very easy to navigate, it has a user friendly screen which is good in navigation and you can find what you are looking for on screen, very easily".

"The screen is very easy to adapt to, you can understand all the functions on screen as they are well labelled. This gives the user a good idea on where to find certain aspects of the system"

"I' am fairly new to the system however believe it has an excellent user interface, it is well presented and the layout is ideal, you can divide your screen well by having an eye on all aspects of the system, this was vital for me as I did not want to miss out any attention to details, especially as I was fairly new to the system and company".

Khalil Khan – Driver & Former Manager

Khalil Khan used to work as a manager for the company, Khalil adds "Whilst working for the company as a manager, I used to produce company accounts and records using Excel and data from the cPAQ system, it was long however there was no other way of getting the job done, I also used to train new staff members to ensure they were fit for work and had the necessary skills to carry out their job proficiently, overall though I believe the Cordic cPAQ system is very proficient and had good substance".

Now however Khalil has left his post as a manager at the company and has become a full-time driver, he adds "the transition has been somewhat diverse, however I' am enjoying my time as a taxi driver, you still interact with the system in the forms of a PDA, all the information is provided to the driver by the controller, so there isn't many glitches in the system".

Khalil goes on to add "the PDA device we have which is provided to us by Cordic alongside the cPAQ system is very proficient, the driver can GPS the pickup address and vice versa for the destination, this means that the driver does not even have to ring the office for directions, it's all provided for him/her in the PDA device"...

Khawar Akram – Driver

Khawar Akram is a part-time driver and only works for the company during the weekend, "drivers do not have much communication with the office unless there is a problem or if they wish to obtain some relevant information".

For the drivers, the jobs are communicated through the means of a PDA, Khawar states that "the PDA is very easy to use; you receive a job, accept it and do it, job done! Only if there is any problem or I require some additional information, I contact the office".

Raja Nadeem Akhtar - Driver

Raja Nadeem Akhtar has been working for the company for just over 2 years now; he is a full-time morning driver. Nadeem adds "the system is very good, the technology allows the controller to send exact locations, and job details to the drivers PDA, this is excellent as there is no unnecessary communication between the controller and driver, all the job details are provided quite clearly".

Raja Nadeem Akhtar goes on to add "The PDA is a smart device in which the drivers can receive jobs, in addition there are other good features to the PDA as well as receiving jobs, you can send and receive messages from the PDA, the driver notes allow the driver to obtain any additional information a job might have, in overall the system is very good".

Chapter 10.1.4: IT Inventory

Network

There is an ADSL line in the office, the office has a net gear router which is connected to all three computers which provides Internet services. They are provided with a BT business hub and the Internet service provider is BT.

PC/Workstations

In total there are three PC's within the office at Millennium 24/7, these are all Dell OptiPlex 380, all the computers are on Windows XP professional.

Printer

The printer which is in use in the office is: Epson Aculaser M2000, this is used to print both black & white and colour pages and is used for company letters etc.

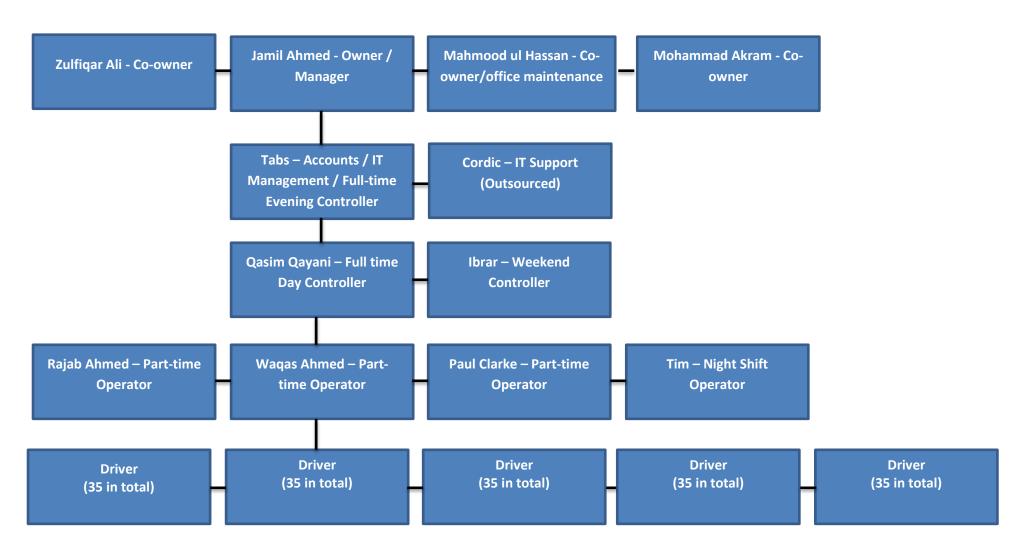
Software

The operating system that is used in the workplace on the office computers is Windows XP Professional. The desktop publishing software used in the office is Microsoft Office 2003; MS-Outlook 2003 is used for company e-mails and Excel 2003 to produce company accounting details etc.

There is a taxi service database provided by Cordic, which is called the cPAQ system, the system allows Millennium 24/7 to book taxis, view records and check for prices etc.

The office computers are installed with Windows Explorer; this is used to check incoming flight details and other related information to the company.

Chapter 10.1.5: Organisational Chart



Chapter 10.1.6: Product List

- **Normal Car (S)** This is the normal type of car (Saloon car) which is used for local work around the Hemel Hempstead Area. However it is charged at normal rates, they are not the highest earners in the business.
- **Estate** Once again not the most productive vehicle in the fleet, however useful for some passengers. A small amount is added to the vehicle fare.
- MPV Multi-person vehicles, these are charged more than saloon cars due to the number of
 passengers, the largest vehicle at Millennium 24/7 is an 8 seater, there are a few MPV's on
 the fleet and are a good asset to the business especially on weekends and special occasions.
- BC Business Class vehicles, used mainly for accounts and work of similar level, are a great benefit to the fleet, as they show the companies class and capability to adapt to all standards of work.
- VIP Car VIP cars are the most prestigious vehicles on the fleet, from brand new Mercedes
 to BMW's. These cars are used for high-profile work; they can also be rented out by people
 to escort to weddings, birthdays and other celebrations. These are definitely one of the
 highest earners for the company; however there is not a high capacity of work for these
 types of vehicle.
- Silver & Gold These are the types of cars on the fleet, silver cars are mid ranged cars which
 a customer can select a small extra cost, gold cars are very similar to VIP cars however a little
 cheaper, also gold cars are used for local work whereas VIP cars are used for day/hourly
 bookings etc.

Chapter 10.2: Step 2: Preparing for the Workshop

Chapter 10.2.1: Draft Vision Statement

Millennium 24/7 will strive to become the best taxi service providing company in Hemel Hempstead and surrounding areas, providing excellent customer service and good value for money journeys.

Chapter 10.2.2: Draft Statement of Direction

The company will continue to grow, in both drivers on fleet and customer base, also continue to uphold their outstanding level of customer service. Also try to discover a niche in the market which will enable them to beat their rivals and local competition, in order to become the leading taxi service providing company in Hemel Hempstead and surrounding areas.

Chapter 10.2.3: SWOT Analysis

Strengths

- Good Location: Being in a football club which also has a local pub will give Millennium 24/7 that extra bit of work and customers.
- Established Company: Millennium 24/7 has been operating since the new Millennium as a taxi service provider, also known for their repeat customer base.
- Expert Staff: Millennium 24/7 have some very experienced staff members in the office as well as drivers. Providing customers with the best advice and taxi experience.
- Luxurious Cars: Millennium 24/7 have some nice prestigious cars on the fleet which the customers can request for a small extra amount.
- Efficiency: The taxi firm is known for being prompt to all types of work, whether it being high profile account work to standard town work, Millennium 24/7 always strives to be with the customers as soon as possible.

Weaknesses

- Ageing IT and Equipment: The IT structure/framework in the office is ageing; it is not up to date therefore cannot perform many advanced actions; also the equipment in the office is in need of upgrading.
- Out of date software: The software needs to be upgraded if Millennium 24/7 wish to become one of the leading taxi service providing companies in Hemel Hempstead.
- Recent Decline in Market: Due to the recent fall in the country's economic climate, more and more individuals are opting to either travel themselves or use public transport.
- At the moment there is no real structure to the company, some staff members are delegated more tasks than others, this matter needs to be addressed, a good resolution to this issue may be appointing an office manager who controls day to day office duties.

Opportunities

- If Millennium 24/7 want to become well-known in Hemel Hempstead, they need to secure more clients such as Holiday Inn to raise brand awareness and increase business.
- Upgrade the IT equipment in the office will enable the company to perform more functions, and stay one step ahead of their competitors.
- Upgrading DTP software on the computers in the office, so that Millennium 24/7 can create posters, flyers and leaflets themselves rather than using outsourced companies.
- In today's market a lot of people are using the Internet, I believe creating a website is one of the first things Millennium 24/7 needs to do.
- On the website, have an online booking system with a payment option, linked to the company's cPAQ system to generate more business.
- On the website have some sort of price comparison to other competitors for the customers viewing; this is so that they can see who is providing value for money trips.
- Linking the accounts and cPAQ system so that it will make it easier and efficient to produce company accounts documents.
- Taking into consideration the growth of Facebook and other social media sites, having a social media page which will help attract customer business and increase customer base.
- One of Millennium 24/7's rival companies have a phone app, Millennium 24/7 need to create one of their own and ensure it is better.

- Train all staff members so that they are well educated on the system and they can perform their day to day tasks proficiently.
- If Millennium 24/7 wishes to adopt a direct marketing approach, they can adopt a direct marketing company that will send out regular e-mails, newsletters, offers to existing customers, to increase the companies' reputation.

Threats

- The current database at Millennium 24/7 is not 100% secure, this could be a major threat as valuable customer information may be at risk from hackers etc.
- Another possible threat for Millennium 24/7 could be staff who may leave to go to another taxi firm, this is a risk as valuable customer & system information could also be transferred over with the leaving individual.
- The biggest threat for any company will be from its competitors and rivals, other companies can try to compare their prices to the ones of Millennium 24/7 and undercut them in any way possible, this may decrease the customer base at Millennium 24/7 as the customers may switch to another company due to the prices.
- Millennium 24/7 have no internet or social presence, this is a threat as competitors have good dynamic websites and phone apps which appeal to a wide range of customers.

Chapter 10.2.4: Issues Important to the Enterprise

Political

- Problems with individuals from outside the Decorum council working in Hemel Hempstead, however council very supportive.
- Political unrest with the Middle East affecting the cost of oil, this conflict is affecting the prices of petrol & diesel in the United Kingdom.

Economical

- Inflation in petrol & diesel costs, the rise in the oil prices is leaving less profit margins for drivers and the business.
- Due to the economic climate, fewer individuals are booking taxis and going out; this is leaving the business with fewer customers than before.

Sociological

- Due to the current economic climate in the United Kingdom, the state of un-employment is halting people from booking taxi's, they'd rather travel themselves or take public transport to reduce the amount people spend.
- The UK economy has forced citizens to change their lifestyle, by doing this fewer people are going out to socialise and are staying in and saving money.
- Although the UK economy has forced people to go out more, the increasing UK population is bound to produce more customers.

Technological

- The lack of IT skills in the current workforce at Millennium 24/7 is a worry for the future; they have a few expert staff however this needs to be spread throughout the workforce.
- As IT is advancing in this sector of the market, there is always a need of upgrading current IS an IT system to ensure everything is up to date.
- Competitors are advancing their IT systems, reducing the need of human interactions, ensuring the computer system carries out most the work.

<u>Legal</u>

- With the changing legislations nowadays, the company needs to be aware of this and act upon it accordingly.
- Health and Safety issues in the workplace need to be addressed and ensure that the company are complying with them suitably (Health and Safety Act 1974).
- Ensuring that the company is fully aware of the Data Protection legislation and act upon it appropriately, working with the DPA principles closely (Data Protection Act 1998).

Environmental

• As the taxi company provide vehicles, they need to be aware of emissions; the company strive to have newer vehicles to reduce their emissions and carbon footprint.

Threats from Competitors

The biggest threat to a company in any sector are the threats from competitors, these are the ones Millennium 24/7 need to be aware of and try to combat in any way possible. For Millennium 24/7, the number of competitors is very high, they can also expect new companies opening trying to challenge them for their business. Some of the aspects Millennium 24/7 can expect to consider are;

Price & **Fares** – Rival companies could see how much Millennium 24/7 are charging for journeys such as airport runs & taxis to surrounding areas, and try to undercut their rivals in terms of price, this will in most instances draw the customers away from Millennium 24/7 and to the other companies, customers need to know they are being provided with good value for money journeys.

Customer Service – Whatever sector you look in, the top companies in the industry always provide high quality customer service, it is an essential key of being successful for any company. Millennium 24/7 can tackle this issue by employing the best possible staff to provide the best possible customer service.

Threats from Suppliers

Millennium 24/7's suppliers are leading account companies such as Holiday Inn; they are a good company who provide Millennium 24/7 with regular work in around the town and surrounding areas. Millennium 24/7 however need to broaden their accounts and ensure they have more than a few companies supplying them with regular account work.

Threats from customers taking business elsewhere

Having fluent and repeating customers are an asset to Millennium 24/7, if these customers are upset with the company or have a complaint which is not dealt with appropriately may be tempted to take their business elsewhere and use a different taxi firm.

Customers are always looking for value for money deals especially with the current economic climate of the United Kingdom. An example of this could be that Millennium 24/7 could be providing customers with good prices, however unknowingly could be undercut by rival competitors, this may entice the customer to opt for the cheaper option, also if a rival competitor may be providing some additional service, this may attract customers elsewhere.

Threats from new entrants

New entrants are always looking to hit the market running, their first objective is to secure as many repeating customers as possible, they will pretty much do anything to ensure this is done appropriately.

For example if a new taxi service providing company is opening in the Hemel Hempstead area, they will always try to find a niche in the market, try do something different, if they have no niche product they can offer the public, they will always try to undercut all rival companies in terms of

price and value for money. This will be good temporarily for the company however the key is to see how many of them customers will return and be satisfied with the service provided.

Threats of substitute products or services

Once again referring to the country's economic climate, not many people are willing to use taxi companies to go out and socialise, they would rather stay home and have a good time. Weekends in particular have decreased in terms of business considerably, a few years back Millennium 24/7 used to generate enough business for all drivers, now the work is good however not as good as it used to be. The substitute product on weekends now is for a group of people to get together at one house and drink alcohol they purchase themselves, rather than for them to use the taxi company and go to a pub or night club.

A few years back during the week, Millennium 24/7 used to have fares from Hemel Hempstead to surrounding areas such as Watford, Hatfield, Luton and St Albans, there used to be a few journeys booked daily. However in recent times, the number has dropped slowly and more people are using public transport such as trains and busses to get around.

Chapter 10.2.6: Draft Evaluation of current IS/IT

1. Bookings (Taxi Bookings)

A customer can book their taxis through the phone, the phones are linked to the cPAQ system so the caller ID identifies the customer calling, by e-mailing the office, the response time depends on the operator in the office, or they can come to the office themselves and book a taxi. The e-mail procedure is a bit slow as not everyone in the office tend to read the e-mails on a regular basis.

Functions:

Enquiry from customer

Acknowledgement of enquiry & quote to customer

Booking taxi if customer confirms quote

Entering details of journey into cPAQ system

If customer pays by card, details entered into card reader

Confirmation of booking to customer

Distribute job to driver

Driver completes job and receives cash payment by customer if not already paid by card

Hardware:

Office computers

Software:

cPAQ system
Microsoft Outlook

Support:

None

Links:

None

Interview Comments:

From speaking to a novice staff member he states "the system is very easy to navigate, it has a user friendly screen which is good in navigation and you can find what you are looking for on screen, very easily".

He goes on to add "I' am fairly new to the system however believe it has an excellent user interface, it is well presented and the layout is ideal, you can divide your screen well by having an eye on all aspects of the system, this was vital for me as I did not want to miss out any attention to details, especially as I was fairly new to the system and company".

Summary:

The system is being used competently, there are no problems with the bookings being processed, however there is still room for improvement, Millennium 24/7 can broaden the methods in which a customer can book or enquire about a taxi, hence a fully functional website.

2. Accounting System

The company do not have a Sage package to produce their accounting reports and instead the reports & documents they do produce are done using MS excel, and data extracted from the cPAQ systems. Tabs produces account sheets for all clients and drivers, the drivers can then use their account sheets and collect their cheques from the owner Jamil Ahmed.

Functions:

Produce account clients invoices
Record account client payments
Record customer payments
Produce account sheets for drivers
Pay drivers cheques according to their account sheets
Produce accounting reports & documents for company records

Hardware:

1 stand-alone PC

Software:

Microsoft Excel 2003

Support:

None

Links:

cPAQ system

Interview Comments:

Tabs is concerned that the cPAQ system is not connected to any accounts producing system, so if any accounting information needs to be created, all the information requires to be re-keyed into Excel. cPAQ is very limited in terms of creating management reports and any other marketing documents, if these are to be created; information needs to be extracted from the cPAQ system.

Summary:

The system is not connected to any professional software for producing accounting documents, also the current ageing IT across Millennium 24/7 calls for upgrading in the company's software.

3. Advertising & Marketing tools Production

Currently Millennium 24/7 do not have any high quality DTP software such as Adobe Photoshop & MS publisher to produce high class marketing and advertising tools. The posters which they create are done using Microsoft Word, and the company's business cards are done using some outsourced company. The company is advertising their services in the local Hemel Hempstead directory "Yellow Pages".

Functions:

Produce posters
Produce business cards
Advertise company in "Yellow Pages"

Hardware:

1 stand-alone PC

Software:

Microsoft Word 2003

Support:

None

Links:

Outsourced business card producing company

Interview Comments:

From speaking to all the owners of Millennium 24/7, they believe advertising the company is very critical, ensuring the company is in the public eye is very important, also in the growing interest of the internet, Mahmood ul Hassan believes advertising the company online is another major factor. "Jamil believes that the ageing computers and software in the office are preventing Millennium from producing good quality advertising material; the old computers in the office are unable to run the latest DTP and Adobe software such as Publisher and Photoshop."

Summary:

The lack of IT skills and DTP software is a concern in the office at Millennium 24/7; the owners believe upgrading the IT infrastructure is a necessity; this is so that the company can produce high quality advertising tools within the organisation without the need of any outsourced organisations.

4. IT Management System

IT Support for the cPAQ system is currently provided by Cordic, who are also the owners of the system. They provide phone and e-mail support to all their clients on how to resolve any issues with the system.

Functions:

Issues regarding system
Phone support
E-mail support
Manage off site system backups

Hardware:

Office PC's Server& Network

Software:

Windows XP Professional cPAQ system

Support:

Cordic (Outsourced)

Links:

None

Interview Comments:

The response time from Cordic is usually good given they have a large team of experienced and professional staff, however it would be great to have an employee at Millennium 24/7 who can also provide IT Support, this would cut out the communication time.

Summary:

The IT Management system at Millennium 24/7 is in good working order, it does not need to be altered in any way to make it run better however having an on-site staff member who provides IT support could be a possible opportunity for the company to cut out communication time.

5. Office work schedule & maintenance

Currently in the office, all the personnel & administrative issues are currently the responsibility of Jamil Ahmed. He looks afters all issues regarding holidays, payroll, work shift patterns and general issues, there is no IT support for this and it is all done manually. Mahmood ul Hassan another owner has the responsibility of looking after the office and carries out any maintenance work there is to be completed.

Functions:

Complete work schedule for the week
Pay each staff member on a weekly basis
Organise any holiday requests from staff members

Hardware:

1 stand-alone PC

Software:

Microsoft Excel

Support:

None

Links:

None

Interview Comments:

As well as owning the company, the four owners work for it, they are also taxi drivers, so Jamil does not spend much time in the office looking after day to day activities, and this is an area for concern for Jamil taking the company forward.

Summary:

There is no IT support in the office to look after day to day administrative & personnel issues, so this is another matter which may need to be addressed. Another major area for concern is the absence of an office manager, there needs to be one in place to look after day to day office duties proficiently.

6. Website Maintenance

The website is incomplete and does not function very well, when it was up and running, an outsourced guy called "Mark" used to look after the website, making any changes which need to be made and update it on a regular basis, from information gained from Jamil and co-owners. Now the website is not functioning and this matter needs to be addressed quickly if Millennium 24/7 wishes to grown their online presence.

Chapter 10.2.7: Provisional list of Business processes

1. Booking Taxi's (For general public)

Functional area	Business activities in process	IS/IT support		
Operator/Controller	Enquiry from customer	cPAQ operator E-mail (Outlook)		
Operator/Controller	Acknowledgment of Enquiry	None		
Operator/Controller	Generating quote of journey	cPAQ operator		
Operator/Controller	/Controller Quote sent and response received			
Operator/Controller	tor/Controller Booking of journey, job stored in cPAQ system			
Operator/Controller	Distribute job to Driver	cPAQ operator		
Driver	Driver Accepts job	PDA		
Driver	Driver completes job, with information provided	PDA		
Driver	Driver deals with money with customer unless paid by card			
Operator/Controller	Booking details stored in cPAQ system	cPAQ system		
Total people effort	7			

2. Customer Service

Functional area	Business activities in process	IS/IT support
Controller/Operator	Take Credit Card or Cheque payments	Outsourced
Controller/Operator	Dealing with customer concerns	E-mail (Outlook)
Controller/Operator	Alterations of booked journeys	cPAQ operator
Controller/Operator Ensuring account clients are content		None
Total people effort	7	

3. Booking Taxi's (Accounts)

Functional area	Business activities in process	IS/IT support
Operator/Controller	Enquiry from account supplier	cPAQ system E-mail (Outlook)
Operator/Controller	rator/Controller Acknowledgment of Enquiry	
Operator/Controller	Generating quote of journey	cPAQ system
Operator/Controller	Quote sent and response received	cPAQ system E-mail (Outlook)
Operator/Controller	Booking of journey, job stored in cPAQ system	cPAQ system
Operator/Controller	Distribute job to Driver	cPAQ system
Driver	Driver Accepts job	PDA
Driver	Driver completes job, with information provided	PDA
Accounts	End of month accounts invoice created	cPAQ Administrator
Accounts	Send account client invoice	None
Accounts	Payment received and details entered	cPAQ Administrator
Accounts	Accounts sheet created for each driver	cPAQ Administrator
Higher Management	Each driver paid cheque for all account work	None
Operator/Controller	Booking details stored in cPAQ system	cPAQ system
Total people effort	7	

4. Marketing Activities

Functional area	Business activities in process	IS/IT support
Marketing	Create business cards	Out-sourced company
Marketing	Create posters	MS package Stand-alone PC
Higher Management	Advertise posters in local pubs & hotels etc.	None
Marketing	Advertise services in Yellow Pages	None
Marketing	Gather website content	Outsourced
Total people effort	3	

5. Financial Operations

Functional area	Business activities in process	IS/IT support
Accounts	Create invoice for accounts	cPAQ Administrator
Accounts	Send invoice to account clients	None
Accounts	Receive payments from account clients	None
Accounts	nts Create account sheets for drivers	
Higher Management	Pay drivers cheques according to their account sheets	None
Accounts	ccounts Export files from cPAQ system to Excel	
Accounts Create accounting documents for company records		Microsoft Excel
Total people effort	2	

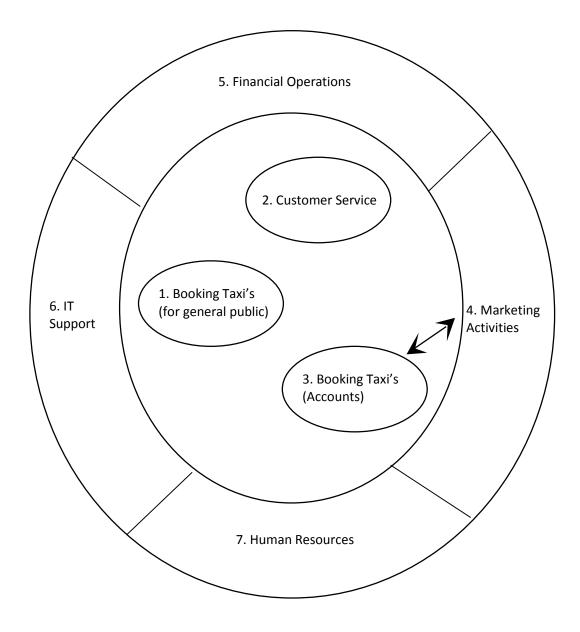
6. IT Support

Functional area	Business activities in process	IS/IT support
IT Support	Phone support to Millennium 24/7	Outsourced
		(CORDIC)
IT Support	E-mail help desk to Millennium 24/7	Outsourced
		(CORDIC)
IT Support	Off-site back-ups for cPAQ system	Outsourced
		(CORDIC)
IT Support	Call out Engineer if any issue cannot be	Outsourced
	resolved	(CORDIC)
Total people effort	3	

7. Human Resources

Functional area	Business activities in process	IS/IT support
Management	Create weekly rota for office workplace	MS Excel
Management	Handle holiday requests from employees	None
Management	Select individuals for specific training	None
Accounts	Pay employees	cPAQ operator
Accounts	Form Payroll details (P45's & Retirement)	None
Higher Management	Select new staff members (recruitment)	Job Centre Ad
Higher Management	Handle employee redundancy	None
Controller/Operator	Review Millennium 24/7 staff for performance & bonus	None
Total people effort	4	

Chapter 10.2.8: Business Process Wheel



Chapter 10.3: Step 3: Setting the Business Direction

Chapter 10.3.1: Critical Success Factors (CSF'S)

- 1. We must integrate our business processes efficiently with our IT system, so it is easier to create higher management documents and fulfil daily duties.
- 2. We must ensure there is an on-site Manager at the office to deal with issues from the office employees and drivers.
- 3. We must ensure one staff member or more are trained to provide IT support in the office to eliminate communication time with Cordic.
- 4. We must ensure our staff members are fully trained and have all resources to complete their duties to a high standard.
- 5. We must ensure customer service is to a very high standard to maintain the company's reputation, and use this to attract more customers.
- 6. We must develop our relationship with current account clients and attract future clients to enhance the company's reputation and presence.

Chapter 10.3.2: Agreed Vision Statement

Millennium 24/7 will strive to become the best taxi service providing company in Hemel Hempstead and surrounding areas, providing excellent customer service and good value for money journeys.

Chapter 10.3.3: Agreed Statement of Direction

The company will continue to grow, in both drivers on fleet and customer base, also continue to uphold their outstanding level of customer service. Also try to discover a niche in the market which will enable them to beat their rivals and local competition, in order to become the leading taxi service providing company in Hemel Hempstead and surrounding areas.

Chapter 10.4: Step 4: Identifying Priority Business Processes

Chapter 10.4.1: Business Process/CSF Matrix

	Business process	Critical Success Factors									
		1	2	3	4	5	6	С	Q	E	P
1	Booking Taxi's (For general public)	Х		Х	Х	X		4	4	7	В
2.	Customer Service		Х		Х	Х		3	4	7	С
3.	Booking Taxi's (Accounts)	Х		Х	Х	Х	Х	5	3	7	Α
4.	Marketing Activities	Х	Х		Х			3	2	3	С
5.	Financial Operations	Х	Х		Х		Х	4	2	2	С
6.	IT Support	Х	Х	Х	Х			4	2	3	D
7.	Human Resources		Х	Х	Х			3	1	4	D

Critical Success Factors (CSFs)

- 1. We must integrate our business processes efficiently with our IT system, so it is easier to create higher management documents and fulfil daily duties.
- 2. We must ensure there is an on-site Manager at the office to deal with issues from the office employees and drivers.
- 3. We must ensure one staff member or more are trained to provide IT support in the office to eliminate communication time with Cordic.
- 4. We must ensure our staff members are fully trained and have all resources to complete their duties to a high standard.
- 5. We must ensure customer service is to a very high standard to maintain the company's reputation, and use this to attract more customers.
- 6. We must develop our relationship with current account clients and attract future clients to enhance the company's reputation and presence.

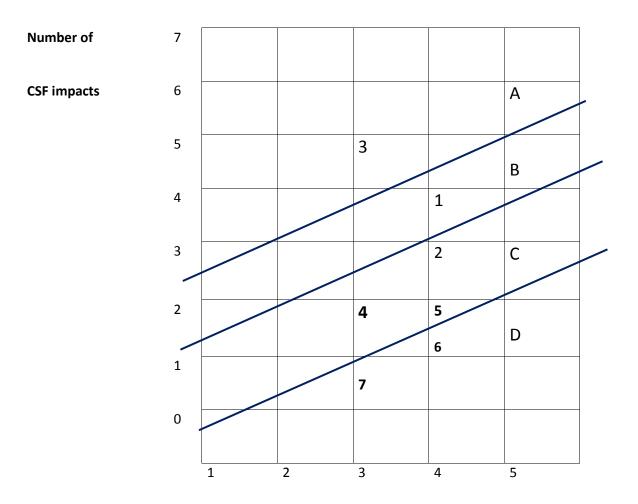
Quality rating (Q)

Priority rating (P)

5	Needs no improvement	A: Most critical for improvement
4	Works well, room for minor improvement	B: Critical for improvement
3	Functions, several areas for improvement	C: Important for improvement
2	Process in place but not functioning	D: Other
1	Embryonic	

Effort (E) is total person effort devoted to the process Importance (C) is the number of critical success factors impacted by the process

Chapter 10.4.2: CSF/BP Priority Grid



Process Quality Rating

Large font indicates big burner processes; bold indicates processes most critical and critical for improvement

Chapter 10.5: Step 5: Defining Improvement Projects

Chapter 10.5.1: Business Process/IT Matrix

		IS/IT	System	S				
PP no.	Business process	1	2	3	4	5	6	Q
A3.	Booking Taxi's (Accounts)	Х		Х	Х			8
B1.	Booking Taxi's (For general public)	Х	X	Х	Х			8
C2.	Customer Service	Х		Х		Х		8
C4.	Marketing Activities			Х	Х		Х	4
C5.	Financial Operations		Х		Х		Х	2
D6.	IT Support	Х	Х	Х	Х	Х	Х	4
D7.	Human Resources			Х		Х		2

10IS/IT support is excellent

- It covers all necessary elements of the process and all the interconnections between subprocesses within the process
- Consistent data and IS/IT usage runs throughout the process.

8IS/IT support is generally good

- Some aspects could be improved
- Most of the interconnections between sub-processes are well supported and consistent
- There are few gaps.

6IS/IT support is fair

- Most parts of the process are supported
- There are clear and consistent guidelines for transferring data from one part of the process to another
- Even though, occasionally, this cannot be done electronically

4IS/IT support is poor

- Some support for some parts of the process
- But major gaps or areas where the support is inadequate
- Those parts which are supported do not, generally, link electronically

2 IS/IT support is embryonic

With a few elements of support only

0 No IS/IT support

Chapter 10.5.2: The role of IS/IT in the enterprise

Where does IT fit in the business?

Information Technology at Millennium 24/7 is an integral part of the business, it is used to book taxi journeys, check for previous and future bookings. Some of the key business processes in the enterprise rely on IT, it is vital in supporting the main processes such as booking taxis for the general public and account clients, also IT could be pivotal for other business processes such marketing, human resources and financial operations. IT can develop these business processes and ensure less time is spent on specific tasks and ensure that valuable time is spent elsewhere.

As described more effective IT can be introduced into the business in order to enhance some of the business processes, they need to be stored electronically, almost all of the human resources process is stored manually, this can be a risk to the company as they can lose valuable data in an event of a natural disaster, fire etc.

There is still need to upgrade the IT in the company, for example having online presence is a key nowadays, Millennium 24/7 can grasp the opportunity of having a website and increase their target market, as well as being an advantage to the company, it will be beneficial to customers as they can use the internet to book and pay for their taxi journeys.

Is IT an important resource?

Information Technology is a very important resource nowadays, there is such a high demand in IT that it is essential for a company to have some sort of IT to benefit, if a company have some sort of IT, this will be beneficial and there will almost be a guarantee that it will profit the company in some way shape or form.

As IT is developing day by day, the need to stay ahead of your rivals is important, as all your competitors are always looking to upgrade their IT infrastructure, you need to stay ahead of your competitors and market if you are to be successful, so therefore IT is a very important resource.

IT provision to individuals

All the individuals require to be fully trained given it be any type of system, but the issue with IT is something is always bound to go wrong or an error is certain to appear, so staff members require to be fully knowledgeable on the system at hand and how to resolve simple issues if they are to occur.

Chapter 10.5.3: Project 1

Project Name: Website Production

Purpose and Description:

A website which will allow customers to book taxi journeys online via the internet, check for prices and to integrate an online payment system so that customers can pay for their bookings.

Processes affected;

- Booking Taxi's (For general public)
- Customer Service
- Booking Taxi's (Accounts)
- Marketing Activities
- IT Support

Size: Small (Cost: up to £7,000 Workload: 6 months)

Risk: Low risk (small and structured)

Time Scale: Short

Constraints: Currently no one is an expert in this field; Millennium 24/7 will require training for their staff members so that everyone using the system can do their job proficiently.

Software: Additional software may be required such as Flash plug-ins and codecs for the website (optional)

Project Sponsor: Jamil Ahmed

Project Leader: Tabs

Initial Action: Contact a suitable web designer/developer for consultation

Chapter 10.5.4: Project 2

Project Name: Device Application

Purpose and Description:

An application which can be installed on iPhones, Android phones, iPod's & iPad's and other technological devices, customers have the ability to book taxis, check for prices and availability.

Processes affected;

- Booking Taxi's (For general public)
- Booking Taxi's (Accounts)
- Marketing Activities
- IT Support

Size: Small (Cost: up to £7,000 Workload: 6 months)

Risk: Low risk (small and un-structured)

Time Scale: Short

Constraints: Millennium 24/7 will need to train members of the workforce in order to ensure everyone using the application and systems are familiar with the features.

Software: Any unsupported software may need to be taken into consideration when producing the device application.

Project Sponsor: Mahmood ul Hassan

Project Leader: Jamil Ahmed

Initial Action: Locate a programmer/developer who can produce the application for Millennium 24/7, also note costing etc.

Chapter 10.5.5: Project 3

Project Name: Training & Development for Staff

Purpose and Description:

Training staff members effectively on the new IT infrastructure and website, ensuring they have the

relevant knowledge to deal with all problems and fulfil their jobs to a high standard.

Processes affected;

Booking Taxi's (For general public)

Booking Taxi's (Accounts)

Financial Operations

IT Support

Human Resources

Size: Small (Cost: up to £8,000 Workload: 2 months)

Risk: Medium risk (small and structured)

Time Scale: Short

Constraints: The timing of the training needs to be just right, if the training is implemented way before the new infrastructure is introduced, then staff members may forget certain aspects of the system. Likewise a similar problem may arise if the training is left too late, some staff members who take longer to digest information, may not be prepared for the new infrastructure/system.

Software: Any new software or hardware/technology introduced, staff may need to be trained

accordingly

Project Sponsor: Zulfiqar Ali

Project Leader: Mahmood ul Hassan

Initial Action: Organise staff work schedules accordingly, see available time periods for staff

members and organise cover consequently

Chapter 10.5.6: Project 4

Project Name: Adopting a direct marketing approach

Purpose and Description:

Adopt a direct marketing company who can send out newsletters, e-mail messages, text messages etc. to Millennium 24/7's customers to promote special offers and notify them on any changes

which are going to take place.

Processes affected;

Customer Service

Marketing Activities

IT Support

Size: Small (Cost: on a monthly basis, approx. £500 per month Workload: on-going project, until

Millennium wish to stop)

Risk: Medium risk (large and structured)

Time Scale: Could be long: Depends on how long Millennium 24/7 wish to carry on with the service.

Constraints: Millennium 24/7 have to be careful as supposed to what e-mails and messages they send to their clients/customers, they do not want to be sending clutter and junk messages to

customers, this may frustrate them and they may be forced to unsubscribe.

Software: No Additional software required

Project Sponsor: Mohammad Akram

Project Leader: Qasim Qayani

Initial Action: Identify what information they wish to send to customers, also to find a suitable direct

marketing company like Katoo.

Chapter 10.5.7: Infrastructure Project 1

Project Name: Upgrade IT infrastructure in workplace

Purpose and Description:

Improved IT infrastructures to ensure Millennium 24/7 have up to date hardware and software in the office workplace to deal with today's market, and the functions they wish to perform. Linking the cPAQ Administrator to a professional accounting software, also upgrading the office PC's is pivotal as

they are ageing and are in need of upgrading.

Processes affected:

Booking Taxi's (For general public)

Customer Service

Booking Taxi's (Accounts)

Marketing Activities

IT Support

Human Resources

Financial Operations

Size: Small (Cost: up to £12,000 Workload: 7 months)

Risk: Medium risk (Large and structured)

Time Scale: Medium

Constraints: Millennium 24/7 need to ensure the development of all hardware and software is done effectively; they need to have a back-up system running whilst the upgrading is taking place. Also to ensure the database is backed up and customer information is safe, to avoid breaking principles from the Data Protection Act.

Software: Microsoft Office Package, Adobe CS5.5 package, New Equipment such as Desktop computers.

Project Sponsor: Tabs

Project Leader: Zulfigar Ali

Initial Action: Discuss amongst owners what IT infrastructure needs to be upgraded, also to consult with an IT specialist to determine factors such as costs and effectiveness.

Chapter 10.6: Step 6: Producing IS/IT Strategy

Chapter 10.6.1: Policy Statement

As most of the business processes at Millennium 24/7 rely on the IS/IT system, the need to upgrade it and keep it up to date is vital. There is also the need to have the data available electronically backed up, so that Millennium 24/7 can access it where possible if there is a problem, or even just for company records. As there is a lot of competition in the Hemel Hempstead area for Millennium 24/7, they must offer their customers with the best services possible, which will encourage more people to opt for Millennium 24/7. A website is an essential feature which Millennium needs to invest in; they need to ensure they have a fully functional website which include options for booking taxis and payment online which will attract future customers. In order to keep up to date with the demand, Millennium 24/7 need to upgrade their hardware and software, this is so they have the relevant equipment and tools to promote the business effectively, and so staff can do their daily duties proficiently. Staff need to be trained and developed efficiently; the relevant amount of time and training needs to be given to each individual to receive maximum results. There are four priority projects which have been proposed; if these four projects are carried out effectively, then Millennium 24/7 have a good chance of gaining competitive advantage and becoming one of the leading taxi service companies in Hemel Hempstead and surrounding areas.

Chapter 10.6.2: Technical Infrastructure

Hardware & Networks:

A new internal network should be installed in order for the computers in the office to be internally linked, the network will mean that each user has access to the computers through a personal user name and password which they can use to log – in to the system, this will eliminate unauthorised access to the computers, although the cPAQ system is provided with log-in functionality, the main computers can be accessed by anyone and should have log-in details for everyone in the office. In addition if preferable for any of the owners, they can have the network linked so that they can view e-mails from the comfort of their homes, however someone is in the office 24/7 so there may not be need for this.

In addition to the new network, this will ensure that the staff members are provided with a fast internet connection, they can use this whilst checking for flight details, also gathering contact information and checking competitor prices etc.

Standardisation of personal computing:

The PC's in the office will need to be upgraded as currently they are not able to run the latest software's which the company requires in order to move forward, by upgrading the computers, the operating systems will all be standardised, this will also ensure that all the computers in the office can perform the same tasks.

The different software which Millennium 24/7 will invest can either be installed on the server, this will ensure all staff members have access to it once they log-in, or it can individually be installed on to each computer, as there are not many computers in the office, this might be a better idea.

The current operating system in the office is Windows XP, this will definitely require upgrading as the old operating systems do not provide the type of security as some these days. That is why the proposed operating system for Millennium 24/7 is Windows 7 professional, the main reason for this simply is that Windows 7 professional is aimed at business clients, as Millennium 24/7 are an established running business, this will suit them best. The operating system will be upgraded when it requires, providing Millennium 24/7 with the latest security tools and in overall the system will run more efficiently due to the windows updates.

Data distribution and sharing:

The new internal network which will be introduced will enable the employees of Millennium 24/7 to share the data more efficiently.

The introduction of the new infrastructure and technology will ensure that Millennium 24/7 have electronic records of their details, for example human resource information, Jamil Ahmed will be able to store the information on the computer rather than having paper forms of all his documentation, this will ensure that the data is secured even when someone leaves, as the information will be backed up, this will make sure that the data is protected against losing data, theft or natural disasters etc.

Software build or buy:

When upgrading anything, different questions need to be answered appropriately and accurately in order to draw a suitable solution. For instance when upgrading the software for Millennium 24/7, different questions need to be answered in order for the business to act accordingly. The different question a company like Millennium 24/7 need to consider are;

- Whether the software is viable financially?
- Does the software have the capability to integrate with the companies systems?
- How will the software be used?
- Is there need for upgrading?

The website which is proposed to be created can be done in two ways, the first of which is by using a company such as 1 & 1 MY WEBSITE (www.1and1.co.uk). This can be done by anyone at Millennium 24/7, and there will be no need for a web designer/developer, this technique is good to create a nice and simple website which can be used to display information and attract customers. However the second method which the business can adopt is by hiring a website designer/developer, this will mean that an outsourced company/individual will have access to all information, however a person from the company can work closely with the web developer to ensure everything is done correctly.

The website proposed for Millennium 24/7 will be a little more complex for the 1 & 1 MY WEBSITE possibility; they do not offer an online payment system option, also there is no method of directly linking the website with the cPAQ system. So the proposed website being a little too complex for this option, the best decision for Millennium 24/7 would be to opt for a web designer/developer to create an efficient website for the company, the website requires three main features, the first of which is to allow the customer to browse the site to collect information on taxi fares, cars available and other possible offers which Millennium 24/7 are promoting. The second function of the website will be to allow the customer to directly book taxis from the website, by doing this the booking should appear on the operators screen in the office of Millennium 24/7, and the third function of the website will be to allow the customer to pay for their taxi online, however this could be by-passed and the customer could pay the driver directly.

Another improvement project which was proposed was the application for phones and other technological devices. Millennium 24/7 can purchase this from Cordic, the company which already provide the cPAQ system to Millennium 24/7, the app which they provide is perfect and exactly what Millennium require, the application will allow customers to make a booking using the app, allow the operator to track the customer using a GPS system which is integrated with the app, and the best feature of the app is that customers can track their own taxi using the application.

Currently the company are creating posters using Microsoft Office (Word) 2003, as one can imagine the quality of the posters are not be perfect, the computers do not have MS Publisher. The software needs to be upgraded, when upgrading the operating system however, all the software in the package are included, this will mean they will have access to software such as MS Publisher, from this they can produce good high-quality advertising material such as posters, leaflets and flyers etc.

Chapter 10.6.3: Management Framework

Restraining vs. Enabling policies

Enabling policies:

Each staff member at Millennium 24/7 will have the ability to communicate with the owners and manager to discuss any potential problems. This will be done through memos, e-mails and notice board information posted.

Restraining policies:

Most of the restraining policies involve staff members as well as owners, so the need for staff to be trained effectively is pivotal.

- As the company is handling customer personal data, all the workforce need to be familiar with the Data Protection Act 1998 and comply with the legislation.
- ➤ Millennium 24/7 needs to consider the Disability and Equality Act 2010, this is to ensure that they do not discriminate against disabled people; they need to ensure they take extra care in their system and website accessibility.
- All employees using the system at Millennium 24/7 need to be aware of the Computer Misuses Act 1998. This will protect both the company and the employees of Millennium 24/7; everyone will know their limitations and what they are entitled to, in terms of privacy.
- Millennium 24/7 need to be aware of viruses, malicious attacks and malware etc. they need to ensure they have the relevant security to protect their data from these types of attacks.

Investment

From when the company opened in the year 2000, not much has been upgraded in the company, there have been small improvement projects such as upgrading desktop computers and new software but no major investment has been put into the office. So the investment this time will be big for a medium sized enterprise. Considering the budget of Millennium 24/7, the following breakdown of each of the project is proposed;

The website is estimated to cost the company around £4,000 - £6,000 if they are to get it done from a professional web designing team, from carrying out secondary research, I had researched into the website costs and got a rough estimate costs of around £4,000 - £6,000 for a fully functional professional website, which will allow customers to book taxis online and integrate this to Millennium 24/7's cPAQ database, so it is visible for the controller. If Millennium 24/7 wish to create a simple website without no integrated booking systems, and just a website which stores company information and prices, this would cost around £1200 - £2000, however I believe that the online booking system will pay dividend and the money will be soon made up. 'The quote was received from a company called Creospace'.

If Millennium 24/7 adopt the 1&1 MY WEBSITE, I believe this would not benefit the company much, as all they will be able to do is allow customers to view the website for information and prices, no specific quotes will be given for given journeys whereas the previous website which was proposed will be personalised to Millennium 24/7's liking.

For the development of a device application, an iPhone app is available from Cordic, this can be purchased for a discounted price for around £2,000 - £3,000 for a fully functional application, however the only problem for this is that it will only be available for iPhones and iPad's, the initial agreement with Millennium 24/7 was to create a diverse application which would be available for android phones as well as apple products so it would appeal to a wider market, the budget for this app is set to £7,000 to complete a fully functional application.

After close deliberation with Millennium 24/7, we have set aside £8,000 for training and development, this is getting an outsourced company as well as Millennium 24/7 training their staff members to ensure they are fit for work and have the necessary equipment to complete their work, also in this budget will include some office equipment such as comfortable seating and other aspects to consider when bearing in mind staff health and safety etc.

As stated earlier the infrastructure project will be handled by an IT solutions company, they are going to advise Millennium 24/7 with the best possible IT infrastructure they will require in order to increase the level of IT in the enterprise. From speaking to the management team, they have set aside the best part of £12,000 for the development of IT, there is no major development required in terms of network and server etc, however the office can do with new desktop computers, new software which will allow Millennium 24/7 to produce accounting and marketing documents, a newer operating system which enhance the security and performance of the computers and a new printer which will be able to print important documents. Other improvement equipment may be proposed by the IT solutions company, the budget will also include the services of the IT solutions company.

Outsourcing

The majority of the work (improvement projects) which needs to be carried out for Millennium 24/7 is of specialist nature, not many people in the current enterprise are specialist in the required field, so the work will need to be carried out by outsourced companies/people. The website, iPhone app and direct marketing projects all will be carried out by external sources as they require specialists in the relevant field in order to ensure the project is carried out proficiently. The plus side for Millennium 24/7 is that whilst these projects are taking place, none of the office members will be interrupted, therefore no change in the staff rota.

Training

In order for staff members to fulfil their daily duties to a high standard, they will need to be trained and developed. Staff members will be trained on how to use the website, how to check when bookings and payments have successfully been completed, and to use other functions on the website, likewise this will apply to the application for the technological devices. Staff members will be trained according to time of work they work, for example someone who works during the morning and afternoon, printing account invoices etc. will be trained on how to use the new printers for example changing cartridge/paper etc.

The training can be done either internally or externally, doing it internally will save money however the staff members will learn more if they are taught by someone who is a professional at the system, so the training should be done externally by specialists in the relevant fields. Whoever is assigned to

create the advertising material for Millennium will need to be trained on the relevant DTP software. The owners and manager at the enterprise will need to be trained on content management for the website and application, how they will be able to change different features and content on the website.

Some of the staff members should be given training on the IT system, this will cut out the communication time with Cordic, and staff members will be able to resolve any issues without the need of outsourced companies, training should be given to certain members.

Ownership of Systems

It is essential that whoever is in charge of a particular system that they get handed over charge in good time, this is so that the person can get used to the system and resolve any potential issues proficiently. For the website content manager, the ownership will be handed over to Jamil Ahmed, as he is in charge of main decisions in the company; therefore can update the website more effectively, for the application for technological devices, the ownership should be given to Mahmood ul Hassan, for the direct marketing system the ownership should be given to Zulfiqar Ali and for the companies IT infrastructure to Tabs. These decisions are made purely on the basis of skills and relation to the system.

Support of systems: functional or centrally

The system that is used will be maintained by the initial training project, the website and application for devices will have their own training however will also be covered by the training project. The training and development project will ensure that there is a manual for future reference, in addition produce other supporting material for future staff members such as video tutorials and training manuals so they can complete their daily duties to a high standard.

Development of system/architecture

The website is intended to be created by an outsourced website designer/developer, although it will be created externally, certain individual from Millennium 24/7 such as Jamil Ahmed and Tabs will work closely with the web developer. The communication and input provided by Jamil will be pivotal for the people creating the website.

The application for the technological device will also be outsourced and created externally, possibly provided by Cordic; this will also be negotiated with Cordic, the design phase, navigation and the functionality of the application. Once it is created the development of the application will be done by Millennium 24/7 however support will be provided by Cordic if there are any upgrading's which need to be carried out.

The IT infrastructure project will be done internally in the business, the possible new infrastructure will be decided by the owners and manager, however the advice may be taken from an IT solutions company which will be outsourced. If Millennium 24/7 wish to keep the IT solutions company, they can report to Millennium on possible upgrading systems which are available and other possibilities which Millennium can adopt in order to ensure their system is fully functional and has an competitive advantage.

Management Framework

As all the projects are aimed to be completed within a year's time, senior management and other persons involved need to meet up on a regular basis in order to discuss certain relevant issues. During the meetings the participants will receive update reports on each of the projects from the person in charge of each one. When the progress reports are reviewed, if there are any problems, these can be discussed and a solution can be proposed during the meetings.

As well as having senior management meetings on a regular basis, senior management will keep the workforce involved with the projects and ask for regular feedback from employees on the projects which they are involved in, this is so senior management can get feedback from the entire business.

System Portfolio

Current Systems	New Systems
Bookings (Taxi Bookings)	Website Production system
Accounting System	Application Development system
Advertising & Marketing tools Production	Training & Development system
IT Management System	Infrastructure development system
Office work schedule & maintenance	
Website Maintenance	

Chapter 10.6.4: Communication Process Summary

Once the IS/IT strategy is complete, a presentation will be delivered to the employees and everyone owners in the projects of Millennium 24/7 in order to familiarise the staff members with the strategy. If there are any problems put forward, they will be discussed and dealt with in the appropriate manner.

Meeting will be carried out every month consisting of senior management and other stakeholders involved, the meeting will be a good chance to keep everyone updated with all the different projects taking place within the organisation, also it will be a good chance for people to give their input on certain topics and raise any concerns.

As it is a small workplace, the meetings will be organised internally, the usual method of communication between different people is through the office phone, which has stored everyone's contact numbers, a staff notice board has been inserted into the office which will now be the main course of communication, the meeting times and location will be displayed on the notice board so it can be acknowledged by all staff members. In addition as a precautious measure, word of mouth and e-mail communications will also be adopted in order for staff members to stay updated with the current situation within the organisation.

Below are a few examples on how the activities will be communicated to staff members through the staff notice board;

Activity: Website Management Tutorials

Date & Time: Thursday 29th May 2012: 14:30

Consisting of: All staff members

Conducted by: Jamil Ahmed

Activity: IT Support

Date & Time: Friday 30th May 2012: 13:30

Consisting of: Tabs

Conducted by: Cordic (Outsourced)

Chapter 10.6.5: Action Plan

Projects -> Month / Year	Upgrade IT infrastructure in workplace	Device Application	Website Production	Adopting a direct marketing approach	Training & Development for Staff
01/12	Assign IT solutions team	Talk to Cordic, or external application developing team	Appoint Website Design team	Appoint team for direct marketing approach	
02/12	Research possible hardware & software	ии	un	"Follow up on direct marketing, if not required cancel agreement"	
03/12	Hardware & software specification	ии	ии	"Follow up on direct marketing, if not required cancel agreement"	
04/12	Link cPAQ system to accounting software	ии	ии	"Follow up on direct marketing, if not required cancel agreement"	
05/12	Purchasing hardware & software (building if required)	ии	ии	"Follow up on direct marketing, if not required cancel agreement"	
06/12	Installation of hardware & software	Define content for application and requirements	Define content for website and requirements	"Follow up on direct marketing, if not required cancel agreement"	

Projects -> Month / Year	Upgrade IT infrastructure in workplace	Device Application	Website Production	Adopting a direct marketing approach	Training & Development for Staff
07/12	Testing and Evaluating hardware and software installed	Design Phase for application	Design Phase website	"Follow up on direct marketing, if not required cancel agreement"	
08/12		Implementation for device application	Implementation for website	"Follow up on direct marketing, if not required cancel agreement"	
09/12		""	""	"Follow up on direct marketing, if not required cancel agreement"	
10/12		User testing and completion of device application	User testing and completion of website	"Follow up on direct marketing, if not required cancel agreement"	Appoint team for training and development phase + 'training on new system'
11/12				"Follow up on direct marketing, if not required cancel agreement"	Training to use the new device application developed
12/12				"Follow up on direct marketing, if not required cancel agreement"	Training to use the new website developed

Chapter 10.6.6: Prioritised Project Summary

No.	Projects	Size	Time	Constraints	Risk	Benefit
Inf. 1	Upgrade IT infrastructure in workplace	Small	Medium	Millennium 24/7 need to ensure the development of all hardware and software is done effectively; they need to have a back-up system running whilst the upgrading is taking place. Also to ensure the database is backed up and customer information is safe, to avoid breaking principles from the Data Protection Act.	Medium risk	The infrastructure project is vital as all the hardware and software will be developed to implement the technology, so it is very beneficial project.
1	Website Production	Small	Short	Currently no one is an expert in this field; Millennium 24/7 will require training for their staff members so that everyone using the system can do their job proficiently.	Low risk	The website will give customers the ability to book online, increase customer base
2	Device Application	Small	Short	Millennium 24/7 will need to train members of the workforce in order to ensure everyone using the application and systems are familiar with the features.	Low risk	The device is something new, not many companies have device applications, niche item
4	Adopting a direct marketing approach	Small	Short	Millennium 24/7 have to be careful as supposed to what e-mails and messages they send to their clients/customers, they do not want to be sending clutter and junk messages to customers, this may frustrate them and they may be forced to unsubscribe.	Medium risk	The direct marketing company will send out e-mails, text messages etc, to create brand awareness
3	Training & Development for Staff	Small	Short	The timing of the training needs to be just right, if the training is implemented way before the new infrastructure is introduced, then staff members may forget certain aspects of the system. Likewise a similar problem may arise if the training is left too late, some staff members who take longer to digest information, may not be prepared for the new infrastructure/system.	Medium risk	The training and development project will give the employees a chance to learn new things on the new system and be able to fulfil their jobs to a high standard

Chapter 11: UNIVERSITY OF HERTFORDSHIRE

FACULTY OF SCIENCE, TECHNOLOGY AND CREATIVE ARTS MEMORANDUM

TO Waqas Ahmed

C/C Paul Wernick

FROM Dr Simon Trainis – Chair, Faculty Ethics Committee

DATE 23 February 2012

Your Ethics application for your project entitled:

IS/IT Strategic Intent for Millennium 24/7 Taxis

Has been granted approval and assigned the following Protocol Number:

1112/102

This approval is valid:

From 23 February 2012

Until 30 April 2012

If it is possible that the project may continue after the end of this period, you will need to resubmit an application in time to allow the case to be considered.