

Technical Support to the South African Department of Labour (DOL),
Labour Centres (LCs) and Sector Education Training Authorities (SETAs)

IT Assistance to the FoodBev SETA

Submitted to:

***FOOD AND BEVERAGES MANUFACTURING
SECTOR EDUCATION AND TRAINING AUTHORITY
(FOODBEV SETA)***

SEPTEMBER 2003



Funded under IQC Contract Number 674-I-00-00-00005-00, Task Order 009



Department of Labour

EXECUTIVE SUMMARY

This Information Technology (IT) Assistance Project was conducted from April through August 2003 for the Food and Beverages Manufacturing Sector Education and Training Authority (FoodBev SETA). This United States Agency for International Development (USAID) South Africa-funded work was undertaken by Development Associates, Inc. under USAID South Africa Contract No. 674-1-00-00-0005-00, Task Order 009 on behalf of the South African Department of Labour (DoL).

The consultant began with the supplied structure to identify the IT and information weaknesses in the SETA environment. These weaknesses were then addressed from the perspective of creating a holistic solution. It quickly became apparent that there were weaknesses in each of the following areas:

User Needs. A survey was conducted amongst the main users and a number of important needs in the different areas of hardware, software, networking and Web support were identified and listed in **Appendix A**.

User friendliness and functionality of the DataNet software system – parts were incomplete functionally and others very longwinded, involving too many processes. These weaknesses were clearly shown in the survey of User Information Needs (**Appendix A**).

Server safety (from fire, power interruptions etc) and security (from theft, malicious damage, etc.) were very apparent as major risks, and these were identified in **Appendix B** along with other important risks like poor backup and data security.

Equipment reliability and suitability – One server was inadequate and a second server was having RAID (disk storage) malfunctions. Some PC's were outdated and very slow. (Details of the equipment available are given in **Appendix B**.)

The SETA wants to gain ISO 9001 accreditation this year, but the IT policies, procedures and processes in place were inadequate for this accreditation process and further work needed to be done.

Source Data availability and quality (from SARS via DOL) is inadequate with necessary information being removed before the SETA receives it.

Intermittent 'Hanging' of user software with no obvious cause – this appears to be software related (a DataNet problem).

IT Support costs were raised as a concern.

Inadequate Firewall Reporting.

Lack of System Performance Measures.

Slow internet and email traffic via the SETA's Diginet line.

Poor usability and user friendliness of the Web based interface to the SETA DataNet system.

User unfriendliness of the 'Great Plains' system and its data. A clear indication of the difficulty experienced was that for the most recent financial year end, the Financial Accounts were finalised using the previous Pastel Accounting software because the Financial Manager was confident of getting a rigorously accurate set of accounts out of that package but not out of the Great Plains software.

From an IT perspective, this study has identified a number of needs. Various detailed documents should be developed and processes needed to be clarified. Required documents are listed in **Appendix C**.

With the exception of assistance with selection of Service Provider (deliverable 5) the information gathering and analysis work was largely completed at the end of June 2003. There was however substantial implementation during July and being still present enabled the consultant to monitor and recommend on changes as they occurred. (Details of meetings attended are given in **Appendix D**)

In view of the substantial number of recommendations made, these (43 of them), have been listed in **Appendix E**, along with cross-references and their status at the time of writing. It is proposed that this **Appendix E** be photocopied and used as a check list for monitoring progress.

A PowerPoint presentation on this project was developed. See **Appendix F**.

ACKNOWLEDGMENTS

The consultant assigned to the project wishes to express appreciation to Food and Beverages Manufacturing Sector Education and Training Authority (FoodBev SETA) Staff Members - especially:

Ravin Deonarain
Selvan Naicker
Blanche Engelbrecht
Liezl Gerrytz
Krappie Eloff

Praxis Staff Members – especially:

Mish Middelman
Lisa Seeley-Herbert
Ingrid Obery
Navin Behairelal

Pathways Staff Members - especially:

Winston Stoltz

Finally, Development Associates extends its appreciation to its partner, Khulisa Management Services, who provided local administrative and logistical backstopping and other support for this project.

DISCLAIMER

Development Associates, Inc. has prepared this report. The findings and opinions expressed in this report are solely those of the authors and do not necessarily represent those of the United States Agency for International Development nor the South African Department of Labour (DOL). Similarly, any errors or omissions are the responsibility of the author.

CONSULTANT - JOHN HEWSON

John Hewson, a Development Associates consultant, was responsible for completing this assignment in its entirety.

After initial work in technical programming, John became involved in Industrial Project Management and then Operations Research, becoming a full member of the Operations Research Society of South Africa and of the Computer Society of South Africa. Six and a half years as Head of Management Sciences at the West Rand Regional offices of a large South African Gold mining group gave a broader perspective. A wide range of assignments in the Project Management and Business Analysis fields then followed, mainly with Corporations and Government Departments. John is currently running his own consulting business focussed on action-oriented strategies for addressing IT needs.

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- Appendix B IT System Description and Weaknesses
- Appendix C Documentation Required
- Appendix D Details of Consultant's Activities
- Appendix E Implementation of Recommendations
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ACRONYMS, DEFINITIONS AND TECHNICAL TERMS

ABET	Adult Basic Education and Training.
Backup	Regular copying of information from disk drives to another disk or tape unit for storage in case of damage to the operating disk/s. Daily, weekly and monthly backups are expected, and for servers these must be managed in terms of an agreed backup procedure/process.
Bandwidth	<p>A term referring to the capacity of telecommunications circuits. Double the 'Bandwidth' means that double the characters per second can be transmitted along a line or through a circuit.</p> <p>The bandwidth advertised by a supplier is not always what is received in practice, so measurements may need to be made periodically to identify the cause of slow data transmission. (Unexpectedly slow transmission was a significant problem facing FoodBev SETA.)</p> <p>Bandwidth is provided by an Internet Service Provider (ISP).</p>
Baud System	An Asset Management system used by the FoodBev SETA. It records each asset by bar code, calculates depreciation, and produces an inventory of all assets.
CEO	Chief Executive Officer
Database Server	A server of which part or all is dedicated to running the database storage retrieval and operation for one or more 'Databases'. It is a critical resource for an organisation and must be protected against damage. Corruption of a database or of a database server can literally shut down an organisation depending on it, so must be prevented. In this context, different databases are required for Great Plains (SQL Server), email (Exchange Server) and DataNet.
DataNet	Special purpose software for the SETAs developed by Praxis Computing. It covers SETA requirements including Skills Development Levies, Grant Disbursement, ETQA, and reporting. It contains links to Great Plains, which is used for the accounting side of SETA activities.
DCR	DataNet Change Request - A method implemented by PRAXIS COMPUTING for keeping control over the progress with changes to the DataNet system. This has gradually been tightened over the last several months.
DHCP	Dynamic Host Configuration Protocol (Computer Networking).
DMZ	De Militarized Zone - A part of the setup on its server for the 'Firewall'.
DNS	Domain Name Server (Access to this server is required when establishing connections to the Internet).
DRP	Disaster Recovery Plan – A written Plan detailing how the Organisation would address, and recover from, a number of disruptive information/IT events. Copies to be available to those who would have to mount the recovery.
ETQA	Education and Training Authority
FoodBev	The Food and Beverage Manufacturing SETA.
Firewall	A device – either Hardware or Software – that is used to monitor and prevent unauthorised attempts to access a Server or other Computer. As an example – the Basilisk Firewall previously used by FoodBev SETA was Hardware – a separate physical unit. The ISA Firewall used by Pathways (and now FoodBev SETA) is Software and is server based.

Great Plains	Accounting Software developed and distributed by Microsoft. More powerful, but also more involved and expensive, than e.g. Pastel Accounting.
HUB	A physical device used on a Local Area Network to share information between a network of computers. Not as fast as a 'Switch'.
ISO 9001	International Standards Organisation quality environment that the SETA is implementing.
ISP	Internet Service Provider - A Company that provides electronic connectivity for a client to the World Wide Web. A limited 'Bandwidth' will come from the client to the ISP, which should then link directly to one or more higher capacity lines. An appropriate ISP for the SETA will have a direct link to an Internet 'Backbone' (or very high capacity link).
IT	Information Technology. Includes the equipment, systems and skills required to process information for users, but also, of necessity, the underlying information on which the equipment and systems depend.
LAN	Local Area Network. A group of local computers or peripherals (such as printers or scanners) that are connected (physically by copper wire, fibre optic cable or by wireless) so that they can share resources and information. The connection is by means of HUBS or SWITCHES and is controlled by software based on the computers. Various settings will need periodic adjustment to optimise the flow of information. This 'Local Area Network' is distinguished from a 'Wide Area Network' that uses different communications facilities and protocols.
Netactive	'Netactive' is a local Internet Service Provider which shares infrastructure and services with 'Global' and 'Tiscali'. They have been providing an ISP Service to the FoodBev SETA.
NQF	National Qualifications Framework.
NLRD	National Learner Record Database.
NSDS	National Skills Development Strategy.
Pathways	An IT outsourcing company based in Woodlands Office Park, Woodmead, Sandton. The SETA's new Networking support partner.
PC	Personal Computer.
Praxis	An IT company based in Parktown, Johannesburg. It provides the DataNet suite of software programmes.
Protocol	A piece of computer code that ensures appropriate communication between different pieces of equipment.
QMS	Quality Management System
RAM	Random Access Memory

RAID	<p>RAID stands for: Redundant Array of Independent Disks -- multiple single drives can be combined into a shared system wherein each drive carries only a part of the overall load. This increases the effective speed and capacity of the storage unit, and depending on the configuration, may provide protection in case a single drive fails.</p> <p>RAID-0 Multiple individual drives tied into a single drive 'array' – no fault tolerance.</p> <p>RAID-1 Appears to the computer as one drive, but is two drives - one an exact duplicate or 'mirror' of the other.</p> <p>RAID-3 Data drives are 'striped' and include a backup drive for data protection. There must be at least three in a set.</p>
Router	A device used to correctly direct Network traffic. Common Routers in this environment are made by e.g. CISCO.
SAQA	South African Qualifications Authority.
SDF	Skills Development Facilitator.
SDS	Skills Development Strategy.
Server	A computer providing centralised data, software or other storage for other computers linked to it by an electronic network, and which must be managed appropriately in order to safeguard the information on which the organisation depends. Normally a server is kept in a secure environment under controlled conditions (temperature, humidity, power, access (exclusion of dust, rats, humans etc.))
SETA	Sector Education and Training Authority.
SGD	Standards Generating Body. Part of the overall Qualifications environment – generation standards in a specific area.
SLA	Service Level Agreement - details the types, standards (levels), times and durations of response and service in dealing with technical issues. Will normally specify competence or skill level of the people to be involved.
SMME	Small, Medium and Micro enterprises.
SPAM	Undesired and unauthorised email sent without the approval of a user.
SSP	Sector Skills Plan.
Switch	A physical device that directs Network data to a single computer address.
UPS	Uninterruptible Power Supply – If mains power is interrupted, this battery powered unit switches in immediately and allows continuous operation for a period. For servers it is normally configured to automatically shut the servers down safely before the batteries are too depleted. A computer that is not supplied by a UPS risks having its disk data corrupted should power fail whilst it is in operation. In the case of a database server this can render the database information unusable and can require extensive reconstruction/re-installation.
USAID	United States Agency for International Development.
Web	World Wide Web – or Internet.
Wide Area Network	A linking of individual computers or Local Area Networks so that they can share data and work together. Usually use one or more public telecommunication networks to link distant devices and make use of various protocols and security features to ensure appropriate communication.
WSP	Workplace Skills Plan.

1 BACKGROUND TO THE PROJECT

1.1 Introduction

This Information Technology (IT) Assistance Project was conducted from April through August 2003 for the Food and Beverages Manufacturing Sector Education and Training Authority (FoodBev SETA). This United States Agency for International Development (USAID) South Africa-funded work was undertaken by Development Associates, Inc. under USAID South Africa Contract No. 674-1-00-00-0005-00, Task Order 009 on behalf of the South African Department of Labour (DoL).

1.2 Scope of Work

The scope of work for this task included:

1. Assess the IT, Information and Software needs of the FoodBev SETA according to the core business functions of the SETA;
2. Assess the current IT Infrastructure of the FoodBev SETA;
3. Conduct a hardware and software Needs Analysis to identify gaps in the current system;
4. Draft report and Terms of Reference for the SETA to procure the necessary hardware and software and to enter into a service level agreement with a service provider; and
5. Assist the SETA in selecting appropriate service providers (within the SETA the request was more directly put to identify improvements to the present situation).

1.3 Background

Within the SETA there was dissatisfaction with a number of operational aspects of the IT environment, in particular with the speed of certain computer operations, with the lack of user-friendly systems, and with reliability of certain aspects.

The SETA was started in 2000 and accepted a proposal from Praxis; a Johannesburg based Company, for the provision of IT services. The system was started in October 2001, and set up and getting the basic system working took less than three months. Much customisation was required due both to numerous changes in legislation and to clearer ideas on how the SETA wanted to run its business. Much development was undertaken before it reached its present stage.

The provision of hardware and networking outsourcing was moved in 2001 and then back to Praxis in December 2002.

The SETA is operated on a "Lean and Mean" approach with a small (15 person) staff running the total operation of a R100 Million turnover organisation. This required that all staff members be effective, and that IT be used as a multiplier of the effectiveness of each key person. This was not the case and certain staff members were spending longer processing data through the official system than manually through spreadsheets.

2 OBJECTIVES, OUTPUTS AND DELIVERABLES OF EACH ACTIVITY

2.1 Assess the IT, Information and Software Needs

The consultant assessed these needs according to the core business functions of the SETA.

Core Business

- a. Human Resource Management - This is not integrated with IT – no need for integration was expressed or felt. With the total of 15 employees there is no

substantial reason for implementing a fully integrated approach, and the present 'VIP Payroll' system was left 'as is'.

- b. Financial Management - This was being handled via Pastel accounting. The SETA had an integrated IT package installed which interfaced only to Great Plains and not to Pastel. Uneasiness on the part of the Financial Manager with the way Great Plains had been set up led to a decision to reinstall Great Plains with a single General Ledger and a simplified structure. Much data backlog and data verification also had to be handled during this period.
- c. Payroll Management. - This is done by two people using 'VIP Payroll'.
- d. Fixed Assets Management - This is done in a manual manner with lists stored on Excel, and the Baud System, which was implemented in 2002. (It records each asset by bar code, calculates depreciation, and produces an inventory of all assets.)
- e. Research Management - little research is done by the FoodBev SETA staff – mainly via Internet.

Operational Categories

- f. Task/Job Management - Done Manually with the exception of Outlook which is used for diarising meetings across the SETA. Main use of Outlook is for Email and Calendar. Contacts and Task features not extensively used (Could be more extensively used). Internet used fairly extensively. In General Office Management Word, Excel and Outlook are used extensively. PowerPoint used periodically. The need expressed was for faster Personal Computers (PCs) and Network (Internet and Email) rather than for more sophisticated office management software. No need felt or expressed for a more elaborate system to be employed.
- g. Tender Process Management - Done manually and no desire for automation. Handled in terms of Word documents, Excel Spreadsheets and Physical (paper) files. No need felt for any automated process.
- h. Resource Centre Management - Not defined in IT Terms.
- i. Contact Management - Handled via telephone and Web interface. Serious concern was expressed about the Web interface which has been little used by clients and criticised as slow and difficult. It appears that more effective use could be made of the existing 'Microsoft Outlook' package, and training in this is recommended (see Section 4.19)
- j. IT Infrastructure Management – done manually but with the help of verbal & written reporting from Outsourcing Service providers.

2.2 Assess the current FoodBev SETA IT Infrastructure

The IT Infrastructure of the FoodBev SETA comprised four servers with hubs and 18 networked PCs together with an Internet link and a backup device. Software was from Microsoft Office suite was employed. The Internet and email link was provided by Netactive, a local ISP. A detailed assessment is given in **Appendix B** and summarised in this document. Extensive recommendations covering all aspects of the IT operation are given in Section 4.

2.3 Conduct a Hardware and Software Needs Analysis

Needs were determined by speaking to the SETA Executive (Ravin Deonarain) and IT/Financial manager (Selvan Naicker) followed by departmental managers and other staff in order to get both

an overview, and then a more detailed insight into the problems faced. Summaries of these interviews are given in Appendix A and the conclusions (e.g. a number of staff members' computers were too slow for effective use) were carried through into other parts of this report.

Documents were requested and received from the SETA Management, from the Outsourcing Service Provider (Praxis) and from the consultant handling ISO Certification (Bill Sneddon). These were analysed in the detail required to understand the overall issues.

The software used is mainly a combination of Microsoft Office (Word, Excel, Outlook, Exchange, PowerPoint) with the DataNet and Great Plains combination supplied by Praxis. Great Plains appears to be overkill in this situation (strong criticism was voiced by the Financial Manager in terms of cost and complexity), and could, it appears, to have been substituted by PASTEL. This option was not provided by Praxis so the SETA has no option but to use Great Plains despite the greater cost and complexity.

The major needs identified were:

- Poor server safety (fire, power, etc.) and security (theft, malicious damage, etc.).
- Backup and data security systems were inadequate.
- Equipment was unreliable and unsuitable. Some PC's were outdated and very slow, one server was inadequate and a second server was having disk malfunctions.
- User unfriendliness of the Great Plains system and its data (due partly to the way it had been set up.).
- IT Policies and procedures were either lacking or inadequate.
- Firewall flexibility and reporting was insufficient (especially in the light of ongoing threats from viruses/worms and the potential risk from hackers).
- The SETA Diginet connection was slow (particularly at times from outside) and changes needed to improve speed/throughput.
- Website link to DataNet was of very limited use (use of the website access needs a rework).
- Information availability and quality from DoL was inadequate. This must be taken up at a high level.
- Lack of system performance measures. Professional service providers should have performance measures in place for their systems. In terms of hardware, network and especially ISP and website performance, there was little or no information. This was a particular concern with regard to the website where performance measures are essential as a tuning tool and were simply not available.
- Poor system performance. This was, for many users, inadequate due to slow operation of PC's and the SETA software, and improvements needed to be made in order to improve staff working effectiveness. For a number of SETA employees, slow PC performance masked other possible problems.
- IT support costs were raised as a concern.

2.4 Procure the Necessary Hardware and Software

The consultant made a number of individual recommendations to the SETA Management, some early on during the study, and others towards the end. These recommendations are listed in Section 4. They are summarised and their current status given in Appendix E. This Appendix should be copied and updated by SETA staff members as a checklist of what is still outstanding.

2.5 Assist the SETA to Select Appropriate Service Providers

Service Providers for the SETA fall naturally into three different groups below. Desktop support can be considered separately, but for simplicity is best grouped with either of the first two below – currently it has been grouped with Networking.

- Networking and Server support.
- Software provision and support and user training
- Web Services and support.

2.5.1 Networking and Server Support

It quickly became apparent that there were major needs to improve the security of the servers and networking as historical weaknesses/ short-term actions had not yet been addressed by longer term planning and integration. The SETA Management was aware of a need, but addressing it had been postponed whilst the DOL application for this assignment was processed.

Servers had been moved from their initial location in an office on the North side of the building to another room on the South side, but with no easy way to implement physical security, and with a walkway immediately outside the unbarred windows giving access to a stairwell. Security depended therefore solely on the access control and patrolling security of the office park. Walls were of partitioning and the ceiling was that of a normal top floor (i.e. wood and ceiling board) thus giving no protection against theft or against fire. It was apparent that any physical loss or damage to servers would put the SETA out of business for the period it took to restore the equipment and servers. In the present environment of very close public scrutiny of Government bodies any such event could be disastrous for the SETA. The backup process was inadequate with the equipment unable to do a full backup of data on a single tape, and a limited number of well used backup tapes. Also, the SETA was vulnerable to sophisticated hackers. The SETA has had numbers of attempted connections dropped by its existing firewall, and must expect hacker attacks in the future when the economic value of SETA data has increased. Finally, computer theft is a significant problem in Johannesburg – especially for smaller organisations.

Initially it was recommended to SETA management that the weaknesses in physical security, fire protection, alarms, and data backup be addressed urgently. This was accepted and quotes requested. A problem existed in that the location could not easily be rendered fireproof or theft proof and a physical move or substantial structural alterations would be required. The previous outsourcing service providers, Praxis, indicated that they would be willing to host servers remotely, but due to the distance and consequent dependence on public communication links this was not an attractive option. For a while this problem seemed to be insoluble except at great cost and with a rebuilding of a computer room – not an attractive option.

Almost by chance, an outsourcing company, Pathways, in the same complex was identified and interviewed to see if their service was a possibility. Pathways had been spun off from AECI (A major chemicals company) as an outsourcing company a few years ago to handle IT for their Group office and dealing room (in an adjacent building). This facility required a very high level of technical competence and a 24/7 service. The consultant obtained an extremely favourable reference from the AECI Financial Manager, and then interviewed him. He had complete confidence in Pathways, and was very satisfied with their ability, and their success and consistency in terms of preventing viruses and hacker attacks. References from two other Pathways clients were reviewed. After considerable discussion and investigation Pathways were then recommended as a replacement outsourcing service provider in the networking area.

At an early stage in negotiations the consultant asked for existing fibre optic cables to be tested, and discovered that the fibre cabling previously used by another client in the building, but abandoned on their move, was still useable – leading to a further saving in cost of moving.

The recommendation therefore was that the SETA Servers all be moved to a properly equipped ground floor computer room operated by Pathways. Negotiations on price and service with a single supplier were therefore undertaken rather than any sort of tender process - other suppliers would not have the same proximity, time and cost advantages.

In addition, it was recommended that access to Great Plains be via 'Terminal Services' as (for the two concurrent users expected) this should give higher Great Plains performance than running it on individual PC's.

2.5.2 Software Provision, Support and User Training

In terms of software the SETA faced a choice of very few possible suppliers for the specialised software required, and a software suite that had been substantially customised for them by the supplier. Any change of supplier would cause additional cost, loss of time, disruption to SETA work, retraining, and quite possibly damage to the SETA's effectiveness. It was a high cost scenario that needed to be avoided if at all possible. At the same time the Chief Executive of Praxis (Mish Middelmann) was committed to producing a product of excellence, and became personally involved in ensuring the required quality and other processes within Praxis. The problems with the Praxis software were primarily in certain functionality not being complete, and in other functionality being extremely user unfriendly and involving much work to get results. The problem was with the flow of operations in the software rather than with software not working. Based on the consultant's previous experience he could confidently recommend a repackaging of functions to give an improved work flow that would save time and effort on the part of the user. (The Praxis software team made a breakthrough (11th July) when one of their members phrased the requirement thus – "The internal standard for Praxis must be: To minimise the number of key strokes to achieve a given result").

The above all led to a recommendation that the SETA work closely with Praxis to ensure a viable win/win solution rather than seek a different supplier. Unfortunately this recommendation necessitated that the Praxis operational and development processes be changed, and therefore took more time than a simple stating of selection criteria.

At Praxis, a number of adjustments to quality, control, testing and reporting were brought about to ensure that the developed product was what the user required. The redesign of certain previously unfriendly DataNet functionality has been approved by the SETA Managers concerned.

2.5.3 Web Services and Support

At an early point in this project, the consultant requested figures on website usage, and was disturbed that absolutely nothing was available. It is impossible to effectively use or to fine tune any marketing tool or campaign without regular and appropriate feedback, and the inability of the web company to provide any performance measures cast doubts on their effectiveness. It appeared that the website was not being run in an effective manner. A website presence is far more than just some pretty screens and a measure of the competence of the service provider is the quality and usefulness of the feedback provided. In this case no feedback was available.

The provision of web services was critical to the SETA, and the website fell into two parts - a general purpose website giving information about the SETA, and a link to DataNet for online registration and other purposes.

Two major problems were identified with the website:

- Complete lack of statistics on Website usage, on access to specific pages, or on the general performance of the Website. (The consultant tried unsuccessfully – over a period of weeks - to get measures of performance of the Website – eventually obtaining basic measures via Praxis (who were not responsible for the Website), and believes that the whole website should be moved to an organisation that carefully monitors the performance of the site, and is able to be proactive in suggesting improvements, rather than a provider who passively waits for instructions).
- The website was difficult to use due to the process flow within DataNet.

There was a possible complication with DataNet. System instability within the DataNet system was one of the FoodBev SETA user complaints, and was hard to isolate. In view of this, access from the Web to the DataNet functionality was temporarily suspended (this was decided 3rd July), whilst the trouble-shooting progressed.

2.6 Hardware

There were problems with two servers – one – used as the Web Server - was a desktop PC that had been configured as a Server. The other was the earliest SETA Server where the RAID disk drive set was giving problems and the Microsoft Exchange data was at risk. The consultant had recommended that these be replaced within three months as there was an actual risk to SETA performance and data integrity. After checking finances, the Financial Manager (Selvan Naicker) authorised the immediate purchase of two new servers.

A number of the SETA's PC were old and – in running current software – inadequate. The consultant recommended that ten of these be replaced in the next financial year. After reviewing the SETA finances, Selvan authorised purchase of 10 P4 2.0 desktops with WIN XP (current technology). This meets the SETA's PC need and most of the older machines will then be disposed of.

The consultant initially recommended that the current Backup Device be replaced and adequate tapes be obtained, but with the opportunity to move all the servers to Pathways Computer Room, this no longer was necessary, and the requirement has turned into one for additional tapes for the Pathways backup device (which can cope with the extra load).

The consultant has recommended that one of the SETA's hubs be replaced by a low cost switch in order to speed up data transfer to users PCs. This, with a fibre optic module, will cost less than R10,000 and will significantly enhance Network performance.

2.7 Software

The consultant advised the SETA they had to either make the software solution work or go for a different supplier, and recommended that a win-win solution regarding software was very strongly to be preferred. This meant working with Praxis to redesign parts of the DataNet system to meet the real needs of the SETA. At the same time Praxis appointed an experienced consultant (Ingrid Obery) with experience of DOL work to guide the more junior development staff and the Praxis CEO undertook a personal involvement in progress meetings.

2.8 Information

The need of the SETA for accurate and complete information from the Department of Labour has not been addressed – and is dealt with in the recommendations below under Data Quality. When addressed this will save substantial effort and significantly better data.

3 CONCLUSIONS

The SETA has been going through a period of considerable change and development and consequently the initially provided software and hardware are no longer suitable. The Chief Executives of both the SETA and Praxis agreed that a 2001 model had been quoted and supplied, but the need was clearly for a 2003 model. Considerable weaknesses were found in the current situation, and improvements recommended.

The Hardware and Networking capability is the basis for the SETA's functioning and needs to be current technology, with some spare capacity for growth. It does not need to be leading edge – just in line with that required for current generation office software to work efficiently.

3.1 Cost and Complexity

Praxis should consider whether a lower cost and complexity option of accounting system (e.g. Pastel Accounting) might be made available to smaller SETA's with simpler accounts. (This possibility may be raised by DOL.)

3.2 User Need Determination

With hindsight, user need determination was inadequate – this was not obvious to anyone at the time, but played an important role in inadequate aspects of the design. The playing field and rule set were undergoing frequent changes – due to numbers of changes made by the Government. As much as anything else, this made the role of the developer difficult. In-depth understanding was lacking in the early stages – in fairness – this whole field was new, so no one realised how much needed to be learnt. Delay in development meant a backlog developed. With the ongoing changes in the environment this became a nightmare to resolve.

At present the SETA's three main requirements have been revisited and understood by Praxis, and work to address them is underway. The consultant believes that the SETA and Praxis now both understand the required approach.

This need for learning was unfortunate, but is now past history, and a more exact meeting of needs should now be possible by Praxis.

3.3 Praxis Responsibility

Praxis had a responsibility for data loading – not for data cleanup – no one realised how much data cleaning would be required. This was a crack in the system down which much effort disappeared. Therefore, Praxis and the DOL should, in retrospect, have made clear the need for data cleanup.

Great Plains could, it appears, have been substituted by PASTEL Accounting. This option was not provided by Praxis so the SETA has no option but to use Great Plains despite the additional cost and complexity of running Great Plains.

It is a non trivial exercise to set up a SETA's accounts so that they are at the same time rigorous, able to give useful reporting, and are easily understandable. Given the time delay in the flow of funds, either one or two General Ledger accounts are both feasible, and both can be set up within the Praxis system, but the implications of both should be clearly explained to future new customers.

3.4 Helping the User

The overall system would have benefited by more effort to minimise the work the user has to perform – by default suggesting the most likely option, or offering a minimum effort way for the

user to get results. There are still many improvements that could be made to the specialised software to maximise the results of a user, and minimise the effort of the user in getting there. The SETA will benefit by increased productivity if this is done. In other words, IT should be used as a multiplier of the effectiveness of each key person.

4 RECOMMENDATIONS

4.1 Network Outsourcing Support

The single biggest recommendation made was to change the networking service provider to Pathways, and the location of its Servers. The reasoning behind this was as follows:

- a) The new arrangement has the following physical advantages over the present computer room:
 - i) Physically close so there is no need to go via Telkom or lay expensive cabling.
 - ii) Fire monitoring and fireproofing are already installed.
 - iii) UPS already installed and able to provide 4 hours emergency power (unusually good).
 - iv) Access control (double) and intruder alarm already operational.
 - v) Fire and intruder alarms already linked to an emergency response service.
 - vi) Solid doors and no opening windows in the computer room.
 - vii) A high performance high capacity backup device belonging to the new service provider can be used – leaving only the cost of tapes for the SETA.
 - viii) The new provider has in place a process for the off site backup of key data.
 - ix) Working fibre optic cabling had been previously installed. (This had been left behind by a previous client and was still in working condition).
- b) There are the following further advantages:
 - x) Speed of response in terms of callouts (Same building versus about 20 Km on a freeway.)
 - xi) Reduced financial and time costs for callouts and site visits.
 - xii) Easy contact with the new provider's staff (easy walk versus a freeway journey).
 - xiii) The new service provider has considerable technical ability as shown by their references.

Recommendations were that:

- The SETA should move its Network outsourcing support and administrative function to a new service provider (DONE).
- The SETA should move its Servers to a secure environment. (DONE)

4.2 Backup

A serious weakness in data backup must be addressed urgently (DONE). Backup Policy and procedure need to be signed off and in place and detailed in the Networking Service level agreement. (Underway).

4.3 Replace Equipment (Hardware)

In view of the poor performance of some equipment, the SETA should replace two SERVERS (DONE); 10 PC's (DONE) and one hub (with a switch) (Underway).

4.4 Equipment Setup

Settings of PC's (especially the new ones) should be standardised to the extent practical. Certain network topology/ set up changes should be carried through (e.g. Exchange Server to be a Member

Server, not a Domain Controller; and use Terminal Services for running two sessions of Great Plains).

Address Printer settings – not all users can access both network printers; and not all printer blockages could easily be sorted out.

These recommendations need to be implemented.

4.5 Firewall

It was recommended that the firewall Basilisk be replaced by ISA (from Microsoft). Pathways implemented this recommendation at the end August 2003.

4.6 Bandwidth Monitoring etc

ISP Bandwidth used and other Network performance measures should be monitored on an ongoing basis. The cause of slow Internet speed of access needs to be identified and addressed. After the system has had say two months to settle down a decision must be made on whether to go to a different ISP (Recommended) and whether to double bandwidth to 128 Kb (the consultant is not yet convinced that this is needed).

It is almost certain that further ways of 'Tweaking' the Network to improve performance will be identified. Pathways should actively be on the lookout for such, with particular reference to solving any new bottlenecks that occur.

4.7 Data Quality

It appears – and this line of thinking must be followed through by the Department of Labour - that SARS has been causing needless or fruitless expenditure on the part of at least this SETA - but it seems from discussions – also on the part of others as well - by not passing on data of the required quality. It is not clear what prevents SARS from giving 'perfect' data to DOL for FoodBev SETA.

The DOL needs to raise the issue clearly with the Receiver of Revenue – that unnecessary or fruitless expenditure is being caused by the ongoing transmission of inadequate data from SARS to DOL. A time limit should be agreed by which all data from SARS will be useable. This has NOT yet been addressed.

First step is for the **SETA to raise this matter in writing with the DOL.**

It is understood that quality from SARS has improved during the last several months, but that there are still significant flaws in received data:

- Some firms may be inactive or have closed, but this has not been reflected in any way in the received data and there is therefore no handle on closures. This will consequently cause misleading totals/ statistics.
- Firms with more than 1 branch or operating division may not have had their levies linked with the main branch, causing confusing and misleading data.
- There is no sub-sector information available on the SAR data, or from any other source. This prevents an equitable allocation of funds by the Chambers.
- There is no easy way of linking levies paid by SARS with a specific firm, making it impossible to be certain what a firm is entitled to.
- The consultant understands that SARS gives only: Magisterial District; amount of payment; payee's income tax number; payee's phone number; and the SETA code. Consequently, many firms' data is not really useable.

- The database covers only a fraction of the firms in the industry. (This is not a data problem, but one of recruitment).

It seems that the data problems may be summarized as follows:

No.	Problem	Consequence
1.	Firm inactive or closed.	- Statistics misleading
2.	Firms main branch shows no levies.	- Inaccurate entitlement - verification of claims impossible
3.	No unique identification.	- Can't encourage firm to use its entitlement.
4.	No Sub-sectors shown on input data.	- Cannot allocate funds fairly to chambers.
5.	Only a small proportion of levy paying firms have full address/contact details.	- Many firms uncontactable.

This should be further investigated by DOL with assistance from FoodBev and other SETAs. What is clear is that unnecessary work is caused to the SETA by the lack of this Data, and there is no reason to assume that SARS does not have a much better quality of data that would save substantial effort on the part of this and other SETA's.

4.8 PRAXIS supplied Software (DataNet + Great Plains)

A Win-Win solution should be implemented with Praxis – Praxis should organise its existing software in a more user effective manner, and the SETA will benefit from a more effective system and Praxis from a system that meets real user needs. In addition to software guarantees, **a service level agreement needs to be put in place** to cover action to be taken in the event of serious 'bugs' or inadequacies not covered by guarantees. This should be a simple agreement describing the process, escalation steps, and any penalties. At time of writing a **SLA was underway** (first draft submitted) **but not finalised.**

- **Development should be closely monitored with weekly report back.**
- Redevelopment of DataNet has been with the clear vision that this must be an EXCELLENT data capture and analysis environment. It must assist the staff to the maximum extent possible.
- The link from the Web site to DataNet was removed (decision 3rd July 2003) to help investigations into system instability. It should be replaced as part of a re-launch of the Web site that is aimed to build user acceptance and good will. i.e. **this MUST be done in an integrated manner (Once the software is stable).** Note that the technical side must be firm before the Marketing side is started!!!

4.9 SETA Website

It is concerning that the SETA Website has been so little used. In contrast the IT SETA apparently handles all client input via the Web. In view of the extreme importance of analysing feedback from a Website in order to optimise this, the SETA should move this function to a provider better equipped to give ongoing feedback and analysis. The Website must be an integrated part of the SETA's IT system. It **MUST** provide rapid response to clients and the feedback **MUST**

be analysed. A provider should be identified that combines website design expertise with a Strategic view of marketing and considerable ability in analysing and responding to information from the website and from emails.

One possible supplier, (Mustard Seed Marketing), was interviewed, was considered acceptable, and information passed to Liezl Gerrytz (Marketing Manager) (July 2003) but no decision has been made so far. The consultant believes that Mustard Seed satisfies the minimum standard that should be accepted – i.e. any acceptable supplier should have at least the same level of expertise.

At a late stage in this investigation a limited measurement became possible (courtesy of Praxis). This indicated a small but daily accessing of the site (a few hits per day).

Part of the requirement has to be a simplification of responsibility and acceptance of accountability for the website by a single person/organisation. Apparently text is generated by 'Sharon', 'Herdbuoys' is involved with strategy, 'Gold Creative Services' is involved with creative design, and no one is responsible for performance measurement. Therefore, the following recommendations are made:

- a. **A clear Plan for Web development and implementation must be in place.** This must take cognisance of the marketing needs of the SETA.
- b. **A single organisation must take overall responsibility** for the website, for measurement of its performance, and for strategy and design. The SETA staff is too limited for the functions to be split (between marketing and IT) and for the SETA Managers to be responsible for all these subcontractors. Rather a single performance related contract should be instituted with one organisation capable of design, co-ordination, and measurement. Performance must be measured in terms of simple sub measures relevant to the departments – a single measure like total hits for the entire SETA Website is almost valueless.
- c. **A measure per department is preferred,** to prevent weakness in one area of the Web Site from being masked by strength in others. Thus separate measures for usage of ETQA , Skills Development and Chamber matters are required.
- d. The consultant recommends that, because they are technically competent, and are running network functions, Pathways be tasked **temporarily** with monitoring overall web performance, whilst the broader issues are addressed, and that this be covered in an addendum to (or separate part of) their Service Level Agreement and reporting requirements. Pathways will also be responsible for reporting (regularly and ad hoc) on the performance of the network (and where necessary) on specific servers or other items of equipment.
- e. **Customer satisfaction surveys** need to be implemented for Website users, and should be carried out by people with an appropriate overall skills set.

The above have been recommended, but not yet actioned by the SETA.

4.10 Bulk email (and analysis thereof)

This is an important tool that must be integrated into the SETA's overall marketing Strategy. This should be outsourced to someone able to give succinct, timely and accurate analysis of responses. Emailing is potentially an excellent marketing tool.

Sending of bulk emails, monitoring, analysis of results, and feedback to the SETA of corrections/improvements is a substantial task that can give valuable insight and management information if done conscientiously. Up to around 3000 emails are sent out up to twice a month by Mashumi Tutu's area. A service provider should be tasked with analysing return information. The SETA's administrators (Ariehette Melnick) also send out bulk emails to up to 400 SDF's at a time, and this also can be outsourced and returns (or lack thereof!) analysed.

Recommended but not yet actioned.

4.11 Documentation

This includes an IT Plan, a Disaster Recovery Plan, IT Policies, etc. These documents are described in Appendix C. Some of these documents exist to a limited extent but **need to be finalised and implemented**. Certain recommendations, such as a Disaster Recovery Plan **should not be delayed**.

4.12 Reporting

Summary reporting from Pathways is required on a monthly basis and from the Networking service provider. There should be a greater level of information than was previously provided by Praxis. The report should be a brief summary of firewall activity as well as ISP and Web measures. According to 'Protecting your business' by Zarina Parak in Computing SA 2 June 2003:

“...a good firewall management offering should have a reporting service and a ‘health check service’. A reporting service is indispensable as regular reports provide statistics on firewall performance and security configuration. This service gives important insight into the managed firewall process, through comprehensive reports highlighting device performance, traffic volumes, active users, email, file transfer protocol and Telnet usage by day, week and month”.

Given the ongoing hacker and virus threats it is important that vigilance be maintained.

Content of Monthly reporting from Pathways should be upgraded from that which was previously supplied by Praxis

4.13 Policies and Procedures

These form part of the documentation referred to above. **IT Policies and procedures should be tightened and fully implemented**. To some extent this is required to obtain ISO Certification, but should also be part of the ongoing responsibility of the IT Manager.

This recommendation needs to be implemented.

4.14 Personnel

In terms of the ability to handle required information processing and checking, there is still a **need for a financial person** positioned between the Financial Manager and bookkeeper.

No action on this recommendation as yet.

4.15 Network Monitoring and Control

The SETA network usage, ISP link, and Firewall activity need to be monitored continuously and reported on regularly. Weekly reports from the Service provider would be appropriate. The provision of IT Services may have been outsourced, but accountability still rests with the SETA Chief Executive and with the Financial Manager. Given the recent onslaught that brought much email traffic to a virtual standstill, this risk must be taken seriously. The quote below is illustrative

“[Johannesburg, 15 August 2003] - Three weeks after a patch was made available for the vulnerability in Microsoft's operating system, local corporations are scrambling to minimise the impact of the Blaster worm, which exploits that vulnerability.

The worm, also dubbed LoveSan or MSBlaster, exploits a vulnerability within unpatched Microsoft Windows NT, Windows 2000, Windows XP and Microsoft Windows Server 2003 operating systems.

Since the worm and its variants emerged on Monday, they have crashed systems and spread to hundreds of thousands of vulnerable computers around the world. It also affected the mail systems of several local banks and corporations this week.” ITWeb Daily eNews itnews@e-news.co.za

4.16 Decision Support

The DataNet software package lends itself to the development of excellent decision support features – a few were suggested as part of the consultant's contribution to the re-engineering process, but many others are also possible. To turn DataNet into a really useful package, this needs to be addressed by an expert in Decision Support with insight into the way the SETA works. In this context there would be the development of prompts, or reminders that show an official that an action is possible, necessary or required. For example automatic checking and generation of an alert to an official that *learner x* has fulfilled the requirements for *qualification y*.

Various screens can be modified to assist the decision maker, and to reduce the keystrokes required to get a result.

This should ideally be done with a review of the whole DataNet Package, but to minimise cost, some benefits can be achieved during ongoing development. **Hence Decision Support features should be considered as an aspect of each DataNet Change Request (DCR). This should be written into the process for DCR's.**

This recommendation needs to be implemented.

4.17 Marketing

A clearly defined Marketing and promotion strategy must undergird all the SETA's contact with the broader world. Marketing Strategy needs to be clearly integrated into the website. The website design should flow from the marketing strategy and support this all along the way, being easy to use, enabling the key actions required for customer satisfaction, making very visible the key points of the Marketing Strategy, etc.

This recommendation needs to be implemented.

4.18 Bulk SMS Messaging

SMS messaging is potentially a valuable support tool for greetings and reminders and should be handled by the same service provider as bulk email.

This recommendation needs to be implemented.

4.19 Future Tenders

The SETA should include the following criterion for future awarding of business critical tenders (such as the DataNet software tender): *Does the tenderer have a good quality assurance process in place?* Potential responses might include ISO 9000 accreditation or the Capability Maturity process from the USA may be even more valuable. The tenderer should be able to prove that it has an appropriate quality assurance process in place.

This recommendation needs to be implemented.

4.20 Training

IT Skills generally seem adequate, but this must be monitored. It seems that DataNet and Great Plains skills are adequate. Obviously any new staff members must be trained if they do not have the necessary skills.

One definite requirement is for Project Planning skills. **A package should be obtained.**

Recommended is Microsoft Project (to fit in with the rest of Microsoft Office Professional).

Training must then be provided for this to be effectively used by key members of the SETA. A three day training course with follow-up a few weeks later is appropriate.

Further training to senior staff should be given in Microsoft Outlook which is not used to its full potential. The main use of Outlook is for Email and Calendar. The **Contacts and Task features** are not extensively used. They **could and should be more extensively used.**

These recommendations need to be implemented.

4.21 Service Level Agreements

Service level agreements (SLAs) **should be put in place urgently** with all Providers of significant services to the SETA. Development of SLA's for Pathways and Praxis is underway, and these **need to be finalised** as soon as possible.

This recommendation needs to be implemented.

APPENDIX A – FOODBEV SETA **DOCUMENTATION REQUIRED**

INTRODUCTION

A number of documents are required and the SETA needs to generate these/have them generated as soon as possible. Whilst there is flexibility in the detail:

The requirements for ISO certification must be covered.

This includes numerous procedures, and is being covered separately by Mr Bill Sneddon.

There needs to be:

- An IT Plan
- A Disaster Recovery Plan
- IT User Policy
- Service Level Agreements with Key Suppliers
- Policies and Procedures
- Terms Of Reference for Selecting Suppliers

The major areas of IT MUST be covered by Policies (What is done) and Procedures (How it is done). Some of this will be in greater detail than is required for the ISO Certification, but a document sufficiently detailed for IT use will probably meet most of the needs of ISO Certification (to be checked with Mr Bill Sneddon.)

1. IT PLAN

The consultant recommends that the SETA flesh out an IT Plan as soon as possible. This has several advantages:

- Makes decision making transparent and understandable;
- Makes any planning inconsistencies obvious at an early stage – rather than after a service has been committed to!
- Gives a quick reference point for decisions;
- Makes individual detailed decisions quicker and easier.
- Ensures consistency - if the policy has been thought through in advance!
- Reduces the questions an auditor might have to ask.

The Plan must include information required for a new person to understand the thinking of the present management.

The Plan should be generated by a SETA executive staff member in order to accurately capture the emphasis desired by the SETA – I can make input - but it would be wrong for me to write it. By answering the following questions I believe the SETA will have a customised and relevant IT Plan. It should NOT be an exhausting (!) document, but MUST (inter alia) contain statements on:

- ❖ Policy re equipment replacement (3 yearly? Why?)

- ❖ Philosophy on equipment – what is key criterion – performance, or value for money, or reliability (etc) and why? Is there a preference for specific brands, or for a single brand, and why?
- ❖ Policy on Outsourcing (What should be outsourced and why). What criteria should outsourcing meet?
- ❖ Policy/ Strategy on Standardisation (What should be standardised and why)?
- ❖ Policy/ Strategy on Mobile computing (Why was this decided?)
- ❖ Future directions for the SETA (use of new technology – SMS messaging, Blue tooth communication, supply and use of PDA's etc.?)
- ❖ Policy on Risks – what is acceptable and will be borne internally, what should be covered externally (by insurance or supplier guarantees)? How should risk be managed?
- ❖ Policy on Security – what is important, and what is to be measured, and reported, and by whom and when? (This includes unauthorised physical access and hacking.)
- ❖ Policy on private use (limited private use provided it does not interfere with company ethics or requirements?)
- ❖ Policy on Software – what are the key criteria in selection – e.g. reliability, performance, cost, supplier support or whatever?
- ❖ Key performance measurement criteria for networking, for hardware, for the internet and for individual PC's. (This aspect of the plan should be updated on an annual basis.)
- ❖ Who gets new PC's (e.g. the person with the oldest PC; the person whose effectiveness will most be enhanced by a more powerful PC; most senior person needing a new PC?) (Clarifying this makes for fairness and transparency.)
- ❖ Information What standards should be employed for incoming source information (e.g. from DOL) in terms of accuracy, completeness etc.
- ❖ Other Equipment What other equipment should be considered under this plan – e.g. multifunction photocopiers, UPS's etc.
- ❖ Policy towards Service providers (Partnership or what)

2. IT USER (OR END USER) POLICY

This can range from highly restrictive to largely guideline based depending on the consequences of misuse. In the SETA's situation, with its team based approach and individual responsibility, I recommend that it should not be unduly restrictive. That suggested by Pathways is appropriate.

The purpose is to set clear guidelines for use of company assets, and to set limits within which all employees are expected to abide. This will limit risk and Liability of FoodBev, prevent losses of information, and protect confidential information.

Within overall legal limits, acceptable use will be based on the FoodBev SETA's code of ethics and the legal obligations of employees.

- ❖ The FoodBev SETA has a policy of only allowing legal software, and this must be observed by all users

- ❖ Compliance is required and non compliance will result in appropriate disciplinary action.
- ❖ Information confidentiality must be defined and required, and supported by all. Internet usage should be for work purposes although a limited amount of non offensive private access may be allowed. Non acceptable browsing (pornography etc) should be specified (listed).
- ❖ Likewise, Email should be for work purposes although a limited amount of non offensive private email may be allowed. Non acceptable material should be specified (e.g. offensive discriminatory or defamatory. Restrictions on email use may be specified, and should include reference to junk mail or 'spam'.
- ❖ There should be clarification of Password policy and of third party access to FoodBev information
- ❖ Use of Dial up facilities, company notebooks and PDA's should be covered under the IT Plan, and covered by clear guidelines limiting the amount of damage that can be caused by any of these falling into unauthorised hands.

3. DISASTER RECOVERY PLAN

- This is a set of documents recording the critical information required for the SETA to recover from a natural or man made disaster. Copies must be stored off site and be safe but easily accessible in the event of disaster.
- Disasters can include everything from Natural causes (fire, lightning strike subsidence or earthquake), to manmade (faulty wiring, burst water mains, incompetent shutting down of servers, electrical surges, sabotage, or incapacitation of critical staff. Therefore the Disaster Management plan should contain key contact details; location of key resources; and simple flow charts to guide replacement personnel through system specific actions (It must be presumed that a replacement person is generally competent, but lacks system specific knowledge.)
- Suggestions would be for copies to be kept either by the SETA's Auditors or by the company storing backup tapes in off site storage.
- At least some contact detail should be available to the IT Manager and the Chief Executive, and a complete copy to be kept in a fireproof safe near the computer room.
- It is necessary to distinguish between a Business Contingency Plan and IT Disaster Recovery Plan. The Contingency plan would ensure that some key functionality would continue in the event of some non IT disaster, whilst the IT Disaster Recovery Plan is focused on the IT Aspects.

a. The full document will contain (amongst other items):

- A list of contact details of critical people (Cell phone number, home phone number, physical home address, and email address for –
- Two contact people from the SETA , two from Pathways, two from Praxis.
- Office and cell Phone numbers for any other important suppliers. This includes someone at decision making level of the ISP, and Telkom.
- Brief descriptions of Servers (Serial Numbers, Model, processor type, amount of memory, size of hard disks, etc).
- Identification (Serial) numbers and make, model numbers for desktops and notebooks.

- Communication protocols used and Operating system name and version, and where backups may be found.
- Who has access to backups, and who is the contact person at the off site storage provider (after hours number required).
- Details of server configurations and major system settings (obviously full settings will be backed up on tape).
- Details of user names used.
- Details of who has what passwords
- (The passwords themselves may be placed in a sealed envelope in a suitable fireproof safe.)
- Contact details for local emergency services, for the Office Park Security and Management, (including after hours numbers).
- Contact details for the most appropriate electrician and air conditioning people.
- ANY OTHER DETAILS CONSIDERED IMPORTANT BY EITHER THE IT MANAGER OR THE NETWORK OUTSOURCING PROVIDERS.

4. SERVICE LEVEL AGREEMENTS WITH KEY SUPPLIERS

- Key Suppliers – Customised Software, Outsourcing suppliers, Suppliers of Networking or Web services. This must:
 - Clearly state the Type or Level of Service, level of worker to be involved, and time to respond to calls. Any restrictions due to after hours, weekend or holiday callouts must be specified. So must any penalties for such abnormal hours.
 - State what type and level of performance monitoring shall be in place.
 - Specify if any exclusivity of service required or intended.
 - Map out the process for establishing and providing a new service.
 - Cover Confidentiality, term and other legal aspects as required.
 - Address questions of administration, contact points and resolution of dispute.
 - Clearly cover fixed and variable costs associated with the agreement.

5. POLICIES AND PROCEDURES

- These must dovetail with the Policies and Procedures developed for the ISO Accreditation, but in a number of cases will be more detailed than required for ISO Certification. The Relevant IT Procedure should cover the ground adequately for ISO Certification. In particular, there is a need for procedures to control:
 - a. Data Backup and Off site storage**
 - Procedure being developed by Pathways.
 - b. User registration**
 - Several steps will be involved – an email or other authorisation from Selvan Naicker; recording of identity and contact details; and officially recording the privileges of this user.

c. Password Issuing and control

- This is a manual process that will be under the control of Pathways. Issuing of user privileges – such as remote or dial up access and access to confidential disks or directories must be clearly defined.

d. Equipment issuing and control

- FoodBev and Pathways to agree what equipment will be controlled and issued by Pathways. This should be clearly stated in the accompanying procedure, as should authority for different items. E.g. what level authorises a PC; how does this procedure tie in with the procurement policy for new equipment.

6. TERMS OF REFERENCE FOR SELECTION OF SUPPLIERS:

Criteria

Different criteria must be assessed for different areas (such as Networking and software development), but for the SETA there is a core group of criteria immediately below, and then different sets of criteria for Networking, ISP, Software, Web Service etc. These have all already been fleshed out in terms of recommendations made, or questions posed elsewhere in this report, but are listed here for convenience. In the case of the Networking Service provider all the questions were asked in detail before the recommendation was made:

a. OVERALL

- Supplier Competence – evidence of previous similar work completed successfully?
- Does this purchase dovetail with the FoodBev SETA IT Plan?
- Supplier Stability. – Do they have an acceptable track record? (In the case of a major contract this may be backed up by a requirement to see previous financial statements.)
- Contactable Supplier references – Recipients of a similar service who may be contacted.
- Are there overriding reasons for continuing with the present supplier, or can a new supplier be selected? (Note the different answers to this question in this study for networking support and Software provision.)
- Cost: Is quoted cost reasonable in terms of the product/service provided.
- Have major risks associated with this supplier been detailed?
- Are written guarantees of quality or performance provided?
- BEE as required by the Department of Labour?

b. NETWORKING :

- Location of computer room?
- Construction of computer room (solid brick or concrete, fireproof)?
- Physical measures to prevent intruders?
- Communication with SETA (Fibre optic?)?
- Ventilation & temperature control?
- Fire monitoring?

- Fireproofing?
- Intruder monitoring?
- Intruder alarm?
- UPS – type, Duration of supply; would servers automatically be shut down in the event of a prolonged outage?
- Automatic alarm to technician (during working hours)?
- ISP Connectivity – what links are offered?
- Does the Service Provider have access to more than 1 independent ISP? (Note e.g. that Tiscali and Global and Netactive would all count only as ONE ISP due to the common ownership and sharing of infrastructure.)
- Firewall protection – brand; type; experience with the equipment?
- Performance measures in place, and reporting of performance (Server loading, traffic loading on key parts of the network - especially on lines to an ISP?)

c. ISP:

- What bandwidth is offered at what price?
- Are Setup and Variable costs fair and reasonable?
- Have all annual licence and other fees been clearly stated?
- Does the ISP have substantial incoming bandwidth,
- DO they have bandwidth from more than one supplier?
- Are they connected directly to a Backbone, or are they a lower tier supplier?
- What sort of link would come from them (Fibre optic, twisted pair or what)?
- What sort of link connects them to a backbone?
- What performance measures can they offer, and will they be able to give a detailed breakdown by department of Web traffic?
- Performance measures in place, and reporting of performance (Server loading, traffic loading on key parts of the network - especially on lines to an ISP?)

d. Web Services

- Is the Provider able to provide an integrated service – including Web design, Marketing advice, and measurement of performance of different parts of the Web site?
- Does the proposal meet the real Web needs of the SETA and of its clients?
- Does the Web proposal cater for the different standards of Web expertise on the part of different clients?
- How does the proposal account for measurement of the Web site? (Measurements must be recorded and a database updated automatically (daily figures available) and useful (e.g. number of unique users accessing each portion of the Web Site, or number of unique users capturing Learner information each day). The detail must be work shopped to ensure the most useful information is captured.)

- NOTE: The consultant strongly advises that a Service Provider that is not able to provide satisfaction in terms of WEB site traffic measurement, analysis and proposals for tuning must be excluded.

e. SOFTWARE:

- Does it meet the SETA's needs? Reasonably/ closely/ exactly?
- Is it efficient in operation (straight forward flow from beginning to end of each major task?)
- Does the SETA OWN the rights to the source code?
- Is an audit trail provided where necessary?
- Is a change management procedure in place?
- Is there a systematic and well documented design process in place?
- Time frame for customization and penalties for date slippage?
- Is unique technology used, or could another supplier take over if necessary?
- Will copies of interim documentation be supplied?
- Is it an open system (Communicates easily via standard interfaces)?
- Is the package sufficiently hacker proof with regard to the effects of a hackers entry?
- Is there regular software maintenance and support when necessary?
- Is the initial cost reasonable in comparison to competitors?
- What are the Annual support or licence fees?
- Does it help efficiency by defaulting to most probable user choices?
- Does it prompt users for appropriate actions?
- Does it alert users to follow on actions (e.g. person x has now fulfilled the requirements for qualification y)?
- Are performance measures in place, and reporting of performance? (There must both be a reporting of incidents (bugs/ operational problems) and the time taken to fix them, and measurement of customer satisfaction. I suggest a competent business analyst should walk key users through their section of the computer system on a regular basis (eight weekly?) and check any performance and other problems. Note that the whole environment is dynamically changing and system adequacy must not be expected to remain constant over prolonged periods.)

f. Hardware

- Is the proposed Hardware of current generation?
- Is standard software (e.g. Operating system, Microsoft Office included) with the Hardware?
- Are source disks provided for preloaded software, or is there a comprehensive site license for preloaded software?
- Does the Hardware come with an acceptable guarantee and replacement policy? (3 year carry in?)

- Does the Hardware supplier have satisfactory repair and support facilities in Gauteng?

APPENDIX B - INFORMATION NEEDS

Interviews with key office Bearers

DATE: June 2003

Note that the details below date FROM JUNE – Most interviews were conducted around 15-20th, so they reflect the situation BEFORE the New PC's were installed.

The Work roles we play mean that individuals within the same organisation have radically different information needs and a strength of the system may delight one, whilst the other genuinely tears their hair out over a weakness of the same system. Insight comes from understanding how the different needs are met, and two people using different parts of the same system may have exactly opposite experiences

The information below is therefore a snapshot of the position in June 2003. It is important to give insight into user thinking.

a. Executive Officer – Ravin Deonarain

Use : Great Plains (1 hour/week); DataNet (0 hour); email (No. in 50/out 50) (daily time 1 1/2 hr); internet (1 hr per week); Word (2 hrs daily); Excel (2 hr per week); Other – PowerPoint 1 hr/week.

Information requirements: Strategy and Business Plans; Personnel and Quality assurance information. Sector skill and levy-grant disbursement information. Policy, procedure and practice information. Chart of Accounts and other financial information.

Equipment performance : PC OK; Email OK; Internet OK

Most useful Web measurement: **No of SDF's using Datanet; No. people using the Website (Separated into general public and SDF's).**

Strengths of present System: (POTENTIAL) Vast potential. Strengths in Online data capturing, saving time; precision of capturing, elimination of human error, collation, Interrogation, analysis of aggregated information, statistical analysis, trends.

Great Plains: Detailed management accounting information; better controls, online purchase order processing; eliminate human error, double counting; detailed cost centre reports, monitor financial health of the SETA on an online basis.

Weaknesses in present System:

Project Management delivery time for implementation of system, functionality design, user friendliness, downtime (email etc). Risk – wants to transfer risk.

b. Financial and IT Manager – Selvan Naicker

Use : Great Plains (2 hrs daily- current & future (when accountant arrives); Datanet (0 hours); email (5 in/5 out) (daily time 1/2 hr); internet (1/2 hr daily); Word (1hr/month); Excel (2-3 hrs/day); Other VIP Payroll (1 hr/month); Powerpoint 0 hrs/month.

Information requirements: Financial Management information; financial policies and procedures; budgets and financial statements; manage and control income and expenditure; levy and grant disbursement information

Most useful Web measurement: **Volume of email in/out; hits to Web site and to dataNet per day, week, month**

Strengths of present System:

Weaknesses in present System: Great Plains too powerful and complex for the SETA. Too many extra processes to follow that require extra hours e.g work requiring 3 hrs /week in Pastel requires 3 hrs/day in Great Plains. Datanet has complicated lives rather than made it easier. Process in terms of capturing information is a nightmare. Not otherwise commenting on Datanet.

Costs (Approximate) Pastel 2000-3000vs Great Plains R200 000 excluding setup and implementation. Pastel R1 300/yr vs Great Plains R15 000 per year.

c. Quality Assurance Manager - Krappie Eloff

Average Use : Great Plains (Daily time 0 hours); Datanet (1.5 hours); email (no. in 35 /out 30) (daily time 2 hours); internet (daily time +- 1 hour); Word (daily time 2 hours); Excel (2hrs/wk); Other: Powerpoint from time to time- not daily.

Information requirements: Quality assurance policies and procedures; criteria and standards; monitor application and management of standards by chambers; Provider accreditation information and auditing; qualification attainment; Learner certification; Assessor information (training recognition and auditing; National and Sectoral qualifications , part qualifications and standards; qualification details and certificates; reporting system from Chambers; Reports on accredited Providers. Reports on Registered Assessors. Enrolment of Learners. Assessment of Learners. Expenses in each Cost Centre of the ETQA.

Most useful Web measurement:

Strengths of present System:

An integrated system that should be able to address all issues.

Weaknesses in present System:

- Does not give any useful financial information.
- Network has a number of problems and seems to be very unstable.
- Required reports cannot be obtained from the system.
- System should be a Management tool but currently it is not.
- Supposed to integrate everything, but currently does not do so.
- Many functional areas not well developed and functional.
- System seems to be very complicated and not very user friendly.
- Our stakeholders will not use the system if it is not user friendly and compatible with their systems.

d. Skills Planning Manager – Blanche Engelbrecht

Average Use : Great Plains (Daily time zero hours); Datanet (2 current- should be 1 hour); email (No. in 30 /out 40) (daily time 1 hr); internet (1 hr per week); Word (2 hrs daily); Excel (1/2 hr per week); Other – Powerpoint 2 hrs/month.

Information requirements:

- Data and statistics to inform the development of the SSP and annual SSP targets. E.g. total employment, provincial footprints, qualification profiles, monetary value of investment in education and training.
- Statistics to monitor progress against targets and to inform focus areas for discretionary grants. Financial information: Actual expenditure against budget (functional areas).

- Management information e.g, learner enrolment, Rand value of grants disbursed and disbursable..
- Labour demand and sector skills requirements; enterprise chamber and sector skills plan information; information for reporting on Chamber and sector skills plans, monitoring of enterprise skills plans; reporting from enterprise through Chamber to SSP. Monitor relevance of standards; criteria and standards for learnerships.
- Relevant database of stakeholders per region, giving employee/worker numbers per area.
- Current statistics on learner enrolment numbers, totals broken down by sex, race, learnership, company, chamber.
- Rand value of disbursable grants per learner ship.
- Grants disbursed to a specific company; total disbursement of skills grants.
- Information of actual expenditure against budget per organisation.

Most useful Web measurement:

- Number of hits in each area; Client satisfaction survey of client Web usage.

Strengths of present System: NONE

Weaknesses in present System:

- Time required to test Praxis system when due to the lean structure one doesn't have time – this is impacting on priority work. This time requirement was not anticipated.
- Grant disbursement takes far too long (10 x previous).
- Email – to 2 or 3 addresses - ok, to big numbers of addressees- mail bounces – can't reach people – affects credibility.
- Datanet – Can't commit to time frames as no-one can keep to time frames (e.g. grant disbursements).
- Discrepancies between different reports dealing with same figures. (JH Needs Details)e.g “View Learner” screen and “Reports” on Datanet
- Can't get Management information from the system. E.g. for Council meeting. (JH Needs example/s)R-value of learnership grants
- Cannot disburse Learnership Grants despite requesting link to Great Plains 3 months ago.
- Disbursement process – B.E. Does learnership grant in Datanet → pass to Selvan to do detail in Great Plains. Should be able to do remittance advice and do EFT from Datanet/Great Plains.

e. **Chamber Manager – Liezl Gerrys**

Use : Great Plains (N/A- 0 hours/day); Datanet (+2 hrs/day)(At times of disbursements could spend too long on Disbursements);

email (no. in 75/out 75) (90 min daily); Internet (1 hr/wk); Word (1hr daily); Excel (2 hrs/day);

Other-

Equipment performance: PC OK; Email OK; Internet OK

Information requirements: Chamber budget and expenditure information

Most useful Web measurement:

Number of Hits for each area.

Strengths of present System: Can get everything except for Number of companies disbursed to.

Weaknesses in present System: Grant Disbursement

SDF's find the system NOT user friendly therefore do not use it

Because of the above there is a huge additional datacapture load

Disbursement system process takes a lot longer than it used to

Disbursements not currently linked to Great Plains , therefore

- No remittance advice
- Can't see payments made
- Have to track payments manually from EFT Print outs
- Stability of DataNet – one day it works, the next info is wrong can't capture error pages etc

f. Project Specialist – Mashumi Tutu

Use : Great Plains (0 hrs at present, must draw reports in future); Datanet (0 hours at present, but should be 2hrs/day(Data not available)); email (20 in /20 out per day), daily 1 hr); internet (1/2 hr/wk); Word (daily 2hrs); Excel (2hrs/wk); Other: Power Point 2 hrs/month; MS Project (to come).

Most useful Web measurement:

Number of hits in each area;

Information requirements: Budgets for Discretionary Grants; Project Planning and expenditure information

Strengths of present System: System designed to give strengths, but we are not seeing them

Weaknesses in present System:

Can't get reports from DataNet and Great Plains; Email problems – email down numerous times.

Equipment: PC Very slow and frustrating sends emails once/twice per month to +-3000 addressees with hassles.

g. NSF Project Manager – Imameleng Mothebe

Use : Great Plains (Daily 0 hrs(present), 1 hr/day- future(when data available); Datanet (0 hrs presently, future 2 hrs daily (when data available); email (20 in/20 out) (daily 1 hr); Internet (daily time 1 hr); Word (daily time 3 hrs); Excel (2hrs/day); Other PowerPoint 2 hrs/month.

Information requirements: Overlap from/included with Blanche

Strengths of present System: Overlap from/included with Blanche

Weaknesses in present System: Overlap from/included with Blanche

h. Financial Administrator – Rebecca Kgabale

Use : Great Plains (Daily time 2-8 hours); DataNet 0 hours(Doesn't use); email 2-3 in /2-3 out daily; time+- 10 Mins; Internet +- 1 hour/month; Word 30 min/week; Excel (5 hrs/week); Other: Pastel – till May.

Information requirements: Invoices, payment details

Strengths of present System: Gt Plains functionality good and reporting clearer than Pastel – reporting codes clearer - showed what spent on what.

Weaknesses in present System: Problems in Reporting – (done by Salim). Didn't encounter problems in data capture.

i. Skills Development Administrator – Heidi Forbes

Use : Datanet (Daily time 6 hours); email (20 in /out 20) (daily time 30 min); internet (daily time 30 min); Word (daily time 20 min); Excel (20 min/day); Other PowerPoint 20 min/week/Access 20 min/week

Information requirements: WorkPlace skills plans; implementation reports; Learnership records

Strengths of present System:

Weaknesses in present System

Can't print reports that are necessary; problems with DataNet Data; Doesn't use Gt Plains
Equipment/environment: PC VERY SLOW & hard drive crashes, email painfully slow; internet very slow; MS Office very slow

j. Receptionist – Nomsa Thomo

Use : Datanet +- 4 hours; Great Plains – N/A; email (no. in 15 /out 10) (daily time 15 min); internet (daily time 0); Word (time 2hrs/week); Excel (2hrs/day); Other – N/A

Information requirements: Input information

Strengths of present System: Helps to get the work done

Weaknesses in present System: Very slow

k. Data Capture – Sharon Sookay

Use:

DataNet 8 Hrs/day; Great Plains –N/A: email (no. in 10 /out 10) (daily time 20); internet (daily time N/A); Word (1 hrs/month); Excel (3 hrs/month); Other N/A

Information requirements:

Data for input (Supplied)

Strengths of present System:

OK – takes data

Equipment/environment

PC very slow, MS Office very slow (due to PC)

Weaknesses in present System:

Datanet has lost Data that had been stored (somehow not physically saved) for skills Plans Page can't be displayed won't let go back – gives 'Page error'

l. Secretary – Arielette Melnick

Use : DataNet –N/A; Great Plains N/A; email (no. in 10 /out 10) (daily 2 hrs); internet (daily time None); Word (2 hrs daily); Excel (2hrs/wk); Other Powerpoint (2hrs/month)
PC Slow but OK; email OK NOTE Sends out batches of emails to up to 400 SDF's at a time (periodically)

Information requirements: Information is all supplied

Strengths of present (DataNet/Gt Plains) System: N/A

Weaknesses in present (DataNet/Gt Plains) System: N/A

m. Secretary – Kele Khonkhobe

Use : DataNet –N/A; Great Plains N/A; email (12-15 in /12-15 out); (Daily time 5 hrs); internet (15 min daily); Word (1 hr daily); Excel (1 hr/wk); Other N/A

Information requirements: Receives input from staff for letters and email responses

Equipment: PC OK but Hung a lot; email slow; Internet OK

Strengths of present System: N/A

Weaknesses in present System: N/A

Information Needs

1. To be able to send out mass email distributions – Mashumi normally twice per month
2. To be able to process planning requirements. Blanche/Mashumi have projects totalling around R74 million, and need to be able to plan/manage these effectively. Need MS Project, need effective planning

NOTES:

This brief survey attempted to understand the individual needs and usage of IT. It is revealing how in even a small organisation, the needs and perception can vary so much depending on the work role. Those responsible for generating reporting were generally extremely frustrated with the DataNet and Great Plains, and weaknesses in these areas had implications far wider than the developers would appreciate.

Similarly, a few incidents of data being captured, and then not stored by the system, will be remembered far more than the hundreds or thousands of cases of data being correctly saved – The developers of a system must remember that glitches like these are what determine the users like or dislike of a system.

Network reliability and speed was initially a question in this survey, but the answers to this were drowned out by the state of the individuals PC – old PC and the Network was very slow; reasonable and the network was fine.

A short period when email had failed on a daily basis left a lasting impression, and email was mentioned as one of the major areas of weakness, even though email generally has worked well.

APPENDIX C - IT SYSTEM DESCRIPTION & WEAKNESSES

1. Technical Detail

1.1 Network

Most of the detail below is extracted from more detailed documentation assembled by 'Praxis' and provided to the FoodBev SETA. It was accurate as at July 2003 and refers to the EXISTING Configuration BEFORE the recent replacement of two servers (mid August) and introduction of the new PC's (August). It thus sets the scene against which the various changes and recommendations have been made. Further changes will now continue for a period, so the Praxis information marks the system at a point in time rather than the current configuration. Greater detail is available in the 'Praxis' documents, and also in the documentation now prepared/being prepared by Pathways.

Most of this Appendix is extracted from the relevant Praxis documentation, however **the Notes are my own input as comment on the situation that was found.**

NOTE

Early in this investigation the primary concerns over the equipment below were with:

- a. Location – This is addressed in the main report;**
- b. UPS for the Servers - This is addressed in the main report;**
- c. Server FoodBev 2– RAID Disk Drive failing;**
- d. Server FBW1 – Converted Workstation and inadequate;**
- e. Basilisk Firewall – Reporting, reliability & support;**
- f. Backup – Capability, Reliability and Usage philosophy of the VXA unit;**
- g. Speed of older PCs;**
- h. Internet Access often very slow from inside the SETA;**
- i. Internet Access for outside users was so slow that it discouraged them from using DataNet;**
- j. Diginet line – no measures of performance;**
- k. Network Performance – Network Topology to be modified for speed (see later);**
- l. Printer access & fault clearing;**
- m. Switch needed to replace Hub (identified later) – Speed;**
- n. Range of PC's – Individual rollout required;**
- o. Need to reload and reconfigure all the existing workstations.**

1.2 Infrastructure

The Foodbev - Seta network is based on a standard star network making use of Ethernet topology and is wired to the Unshielded Twisted Pair Category five standard. The network is operated at a combination speed of 10 and 100 Mb/s. Cabling is done to a central concentration unit and server room housing the hubs, servers and routers. The Local Area Network is connected to an ISP. A Basilisk firewall was also being used to secure the network.

NOTE

- a. A fundamental concern was with the security of the Computer Room and the safety of equipment and information in it.**

- b. A second major concern was with UPS (Uninterrupted power supply) for the Servers.**

1.1.2 Physical Components

The network consists of a Dell and clone servers as well as Dell workstations connected to 2 x 3Com 10/100 Office-Connect hubs. The LAN is connected to the Internet via a Cisco 1601 router to the ISP Net-Active via a 64 Kbit Diginet Line.

NOTE:

- a. I requested measurements of the 64Kbit line a number of times, but a clear picture of this was not available – Internet access was at times unacceptably slow, but it was not possible to determine whether there was overload within the ISP or another cause of the problem. It seemed that generally there was NOT an overload of the line, but measurements were not taken at times when the worst performance occurred. Given the changes that have taken place, the SETA should monitor performance over the next few months and, if necessary, get expert technical advice. Other factors suggest that it would be appropriate to change ISP and one .of the competitors has offered double the bandwidth for virtually the same price. A change in ISP must be considered by the SETA in a few months time.**

1.1.3 Logical Network

Server	Location	Application	Operating System
FOODBEV1	Woodmead	Data/Print	Windows 2000 Server
FOODBEV2	Woodmead	Exchange 2000	Windows 2000 Server
FOODBEV3	Woodmead	SQL 2000/Great Plains	Windows 2000 Server
FBW1	Woodmead	Web Server (IIS 5)	Windows 2000 Server

The workstations connect to this network by making use of the TCP/IP protocol and each workstation has its own IP address allocated by the DHCP server. The IP network address for this domain is that of an IP class A address. The current allocated IP addresses are shown in the following table.

Note: The Web Server FBW1 is in the DMZ (Demilitarized Zone).

A Basilisk Fire Wall and a Router were also included.

NOTE :

The following changes have been proposed:

- a. The Basilisk Firewall has now been replaced by ISA (Microsoft).**
- b. The consultant recommended that a Network Hub be replaced by a Switch - for faster data service. This has been done.**
- c. Pathways recommended that FoodBev modify the network topology to improve overall performance. This meant making the Exchange server a member server as opposed to a domain controller.**

- d. Use of Terminal Services.** A suggestion was made by Pathways that Great Plains processing be speeded by users accessing the Server via Terminal Services rather than directly. The change would cause Great Plains processing to be done on the server giving faster response for the limited number of users. (If further Great Plains users were necessary, this should be re-evaluated as they would degrade the overall performance).

1.2 Servers

Description	FOODBEV5	FOODBEV2	FOODBEV3	FBW1
Server Hardware	Dell Optiplex GX240	Intel Clone	Dell Powedge 4400	Dell Powedge 1550
CPU	P3 Xeon 1.6 GHz	P3 550 MHz x 2	P3 1GHz x 2	P3 1 Ghz
Hard Disk	1 x 20.02 GB (No Raid)	2 x 9.1 Gb (Raid 1) 3 x 18.2 GB (Raid 5)	6 x 15.2 GB (Raid 5)	2 x 18.2 GB (Raid 1)
Memory(RAM)	512 MB-Praxis memory	768 MB	1 GB	512 Mhz
UPS	None	None	None	None
Tape Drive	None	Ecirx VXA1	None	None
CD-Rom	Unknown speed.	48 speed.	48 speed.	24 speed.
Network Card	3COM 3C920 Fast Ethernet NIC	Intel 82559 Fast Ethernet NIC (O/B)	Intel 8255x PCI Ethernet NIC	Intel 8255x PCI Ethernet NIC
Network Oper. System	Windows 2000 Server	Windows 2000 Server	Windows 2000 Server	Windows 2000 Server
Latest NOS service pack	Pack 3	Pack 3	Pack 3	Pack 3
Server designation	PDC, AD Replication Authority, Global Catalog.	PDC, AD replicat'n Authority, Global Catalog.	Member Server	Web Server in the DMZ.
Disk partitioning	C – 8.49 D – 11.49	C – 9.17 D – 36.69	C – 10.73 D – 52.43	C – 7.51 D – 10.66
Network Protocols	TCP/IP	TCP/IP	E – 9.60	
Applications on server	Data, Print, Trend Server Protect v5, Backup Exec remote agent	Exchange 2000 Trend Scanmail v6, Backup Exec v8.6.	TCP/IP	TCP/IP
			SQL Server 2000, Crystal Reports, MS Great Plains	IIS 5, Seagate Crystal Reports, Data-Net

1.3 Desktops and Notebooks

The desktops comprise of various Dell branded machines. As of July there was one notebook in use by the staff. Below is a table of the current desktop hardware in use at Foodbev Seta: (as at the start of the project).

Computer Name	Ram	Processor	Hard Drive	Operating System	Office
Aggrey	192	Cel 566 Mhz	7.5 GB	Win98SE	Office 2000
Ariehette	192	P3 666 Mhz	10 GB	Win98SE	Office 2000
Blanche	128	P4 1.5 GH	20 GB	Win98SE	Office 2000
HeidiF	192	Cel 566 Mhz	7.5 GB	Win98SE	Office 2000
ImamelengM	128	P4 1.6 GH	20 GB	Win2K SP2	Office 2000
Julieb	192	Cel 566 Mhz	7.5 GB	Win98SE	Office 2000
Krappie	128	P3 733 Mhz	10 GB	Win98SE	Office 2000
Liezl	128	P4 1.5 GH	20 GB	Win98SE	Office 2000
Mashumi	192	P3 666 Mhz	10 GB	Win98SE	Office 2000
Matito	64	P3 666 Mhz	10 GB	Win98SE	Office 2000
Nandol	192	Cel 566 Mhz	7.5 GB	Win98SE	Office 2000
Nomsat	192	Cel 566 Mhz	7.5 GB	Win98SE	Office 2000
RavinD	128	P4 1.6 GH	20 GB	Win XP	Office XP
Rebeccak	192	P3 666 Mhz	10 GB	Win98SE	Office 2000

NOTES:

- a. The consequence of the variety of memory and processors was that that each new machine had to be configured individually – not with a standard rollout. (The 10 new machines were ordered with identical specifications enabling a standard approach to setting up.)
- b. There was a need to reload and reconfigure all the existing workstations on the Network to standardise the workstation operating system and applications. (Praxis had identified this need.)
- c. The performance of the older machines (Celeron and P3) varied widely – **from** moderate to very slow – given the software and networking setup. An immediate productivity improvement was possible by replacing the slower machines. I recommended the replacement of these slower machines in the next financial year as to improve productivity. (Given that funds and a good deal were then available, the Financial Manager brought this forward to August 2003.)
- d. The new PC's purchased were all identical with Intel 2.4G Processors, 128 MB RAM, 40 GB disk drives and Win XP- i.e. standard configuration with Processor capability above current entry point – a wise decision considering the rate of change in the industry– At time of purchase, an entry level machine had a 1.8 Ghz processor.
- e. The older machines will be reallocated/disposed of.

1.4 Standard software

Each workstation is configured with standard software before user-specific specialised applications are installed:

Operating System	Windows 98, 2000 and XP
Productivity	Office 2000 Professional
Network Connectivity	Microsoft client for Microsoft Networks
Email Client	Outlook 2000
Antivirus	Officescan Corporate Edition

NOTES:

- a. **The Standard Software is adequate for current purposes – will need to be upgraded in due course, but this is not an urgent issue.**
- b. **Antivirus software needs to be monitored by Pathways, and recommendations made.**
- c. **CUSTOMISED Software is considered under SYSTEMS.**

1.5 Printers

A combination of 2 Networked printers and some personal printers takes care of printing needs. The two networked printers NRG2712 and NRG3268 are located at opposite sides of the building, which enables to print to a central location closest to them. NRG2712 has LAN faxing capabilities and has been configured on each workstation.

NOTES:

- a. **There were setup problems in that not all FoodBev users could use both Networked printers - reconfiguration recommended so that if one is not available, users on the other side of the building may still access a network printer.**
- b. **A number of printer problems could not easily be cleared. This was raised with Pathways as an issue. There is a possible problem with printer drivers.**
- c. **At times it was not straightforward to determine whether a printer fault lay within the Network, or within the Operating system and storage of the Printer NRG3268. This is left as a (minor) issue for Pathways to address.**

1.6 Firewall

A Basilisk F100 firewall was installed onto the network to ensure network security and maintain network integrity. The previous SonicWALL SOHO 2 was replaced by the Basilisk as it did not have the DMZ capabilities to facilitate the hosting of DataNet and the FoodBev website over the Internet.

NOTES:

- a. **Questions were raised about Basilisk by Pathways, and the Basilisk unit has now been replaced by ISA software from Microsoft.**
- b. **Key concerns over Basilisk were over:**
 - **Poor local support.**
 - **Contactability of the local distributor (Secureworx, they were uncontactable at the numbers on their web site.)**
 - **The unit has been known to overheat, causing the server to hang.**
 - **Limited reporting facilities.(e.g. Many connections had been dropped by the unit, but there was no way of telling if these were hacking attempts, due to poor line quality, or something else.)**
 - **Limited bandwidth protocol management.**
 - **The firewall has been reported to hinder email traffic.**

2. Systems

Software

Standard software is covered above, Other Software is mentioned below:

<u>Accounting</u>	<u>Great Plains</u>
<u>SETA Core Business</u>	<u>DataNet</u>
<u>Payroll & HR</u>	<u>VIP Payroll</u>
<u>Online Banking</u>	<u>Bank & Internet Software</u>

NOTES

- a. A new version of Great Plains has been released by Microsoft, but the SETA has deliberately not yet been upgraded in order to give time for any bug fixes to be released by Microsoft first!
- b. DataNet was user unfriendly, and certain functionality (e.g. the link between DataNet and Great Plains + a number of other promised features) was not in place, but this has been addressed in detail by Praxis under the close attention of their CEO (Mr. M. Middelmann).
- c. Pastel Accounting was previously used by the SETA, but was phased out in June/July 2003. It was adequate for the SETA's needs but was not supported by DataNet, so had to be replaced by the more expensive Great Plains. Because more detailed information and allocation was required by Great Plains the transition took considerable time and effort.

Data Structures

The following was a summary of current drive mappings and available shares as available to users of the FOODBEV Seta network. This summary also shows the permission of specific users on this data structure.

Share Name	Mapped Drive	Physical Path	Read	Change
C\$	C:	C:\	Admin	Admin
Each user's name E.g. Mbanham	F:	\\FOODBEV5\Data\Userdata\%Username%	\$Username	\$Username
Apps	Q:	\\FOODBEV5\Data\Apps	Authenticated Users	Authenticated Users
Shared Data	G:	\\FOODBEV5\Shared Data	Authenticated Users	Authenticated Users
VIP	H:	\\FOODBEV5\VIP	VIP	VIP
Chambers	K:	\\FOODBEV5\PAS52	Pastel	Pastel
FOODBEV_DN	I:	\\FOODBEV3\FOODBEV_DN	FOODBEV_DN	FOODBEV_DN
Officescan	V:	\\FOODBEV5 Data\Apps\PCCSR\	Everyone	Internet Guest Account

The drive mapping were allocated to each user by making use of a logon script which maps the users drives each time the user logs on to the FOODBEV Seta network. This logon script assigns the drive mappings and shares to the user according to his login name. The benefit of such a system is that any user can make use of any networked PC in the organisation and still receive his/her correct drive mappings when logging onto the network.

Antivirus

The Company system was being virus protected by the Trend Netsuite compilation of products which consists of:

Trend Server Protect ver5
Trend Scanmail ver6
Trend Officescan Corporate Edition.

This system entails a client program running on the workstations to protect them from infection from viruses introduced by external floppy diskettes and rogue Internet or e-mail viruses. The Officescan program running on the client automatically updates upon the clients logon to the FOODBEV Seta network and while this process does remain fairly automated user intervention is required from time to time. The servers are protected by Trend Server Protect ver 5, which is installed and managed on a central location on FOODBEV5. Trend ScanMail ver 6, scans all incoming and outgoing e-mail messages on the Exchange server and is managed from the Exchange server. All the above programs update themselves every 24 hours from the Trend website if there is an update available but because of the important nature of antivirus products they still require constant supervision and maintenance.

NOTE

- a. **Trend is a reputable, widely used and apparently very competent Antivirus company in a competitive field and I did not feel it necessary to make any recommendation for or against them. At a late stage (end August) it appeared that power dips had caused corruption of Trend software on client PCs (not protected by UPS), with a need to reinstall/rebuild the exchange software. This is being monitored by Pathways who may make further recommendations in due course. The overall control of the virus threat appears satisfactory. (There is a double control with the addition of virus stripping at NetActive before email is received.) Obviously there is still a risk from stiffies brought in by staff members, from web sites, and from new viruses.))Whilst checking references for Pathways I received a strong commendation of their effectiveness in protecting AECI from Viruses and Hackers.)**

Backup Systems

There was one VXA backup drive unit connected to FOODBEV2 and which was using Ecix V17 tapes.

The backup system was administered with software called Veritas Backup Exec ver8.6.

NOTE

- a. **The existing backup device was not handling the daily backup load and the new Service Provider Pathways was asked to provide an effective strategy for working around this Risk. They have a high performance Dell LTO backup device with a larger capacity (200 GB) that is stable and will give a lower risk.**

b. Concerns with the existing situation were:

- **Not all Data for Backup could be backed up on a single tape. (The VXA drive has a maximum capacity of 33GB Storage (66GB Compressed, although this is not readily achieved.);**
- **The Ecrix tapes were well used; were inadequate in number; and were due for replacement**
- **Unnecessary data – including some software - was included in the Backups – this needed review at a detailed level. Pathways has accepted responsibility for this.**
- **Concerns over the VXA device were expressed - over both its capacity and its reliability.**
- **The process for testing of backups and for off site Backups was not working satisfactorily, and was raised as a concern to be urgently addressed.**
- **Tapes were changed daily – a manual process with extensive user intervention and therefore extra risk.**
- **No Disaster Recovery Process was in place – Backups without this being in place do not guarantee recovery of data from a system failure.**
- **It appears that improvements to the backup philosophy will decrease the overall backup load (proven to be true late August when the backup volume was reduced by Pathways).**

E-Mail

Microsoft Exchange Server 2000 is installed on FOODBEV2. This service provided all users of the network access to internal e-mail. All administration functions are controlled from FOODBEV Seta. The E-mail domain is FOODBEV.co.za. Any one user's email address corresponds to the format: %username%@FOODBEV.co.za.

All workstations connect to the Exchange service via the Microsoft Outlook 2000 client installed on each networked PC. All messages received and sent by each user are stored in a central Exchange Databases file (.edb). Secondly, all server and client related data is backed up to tape for easy retrieval in case of disaster.

NOTE

- a. **A number of email failures were experienced, and were linked to either DNS addressing problems (related to the ISP) or hardware failure on the Exchange server. The recommendation was that the Exchange server should be replaced with one of the new machines.**
- b. **Very slow addressing of problems by the ISP in July and August is a strong motivation for moving to a different ISP.**

ISP and WEB Services

NOTE

- a. There were a number of strongly unsatisfactory aspects about the Web Service provided.
- b. No performance monitoring of bandwidth was in place, and no measures of traffic were available. This highlighted a shared responsibility with **no one person or organization accountable for Web performance.** This is stated as a major weakness in the main report. Bandwidth monitoring tools should come standard

with the firewall software. **Pathways should be tasked with monitoring and reporting on this regularly.**

- c. A frequent complaint from staff members was with the slowness of Internet traffic both internally, and for outside users trying to use the SETA Web site. I could not get satisfactory detail on this, although the limited measures I eventually obtained indicated that (at those times) the available bandwidth was not fully utilized.
- d. A common complaint was that the Web site is too slow to be used from outside, and this was given as the reason for so much input having to be done manually within the SETA, and necessitating the employment of temporary data capture staff. This splits into two aspects – the effectiveness of the part of the DataNet system accessed from the Web (this has been addressed by Praxis in the re- engineering work carried out), and access to the site from outside.
- e. There needs to be a clear measuring of traffic going to the major parts of the Web site so that decisions can be made on whether certain pages and links are fulfilling their required role, or need to be re-engineered. I was concerned that this sort of thinking seemed to be novel to the Web site contractors, and believe that whoever is given this work must be competent to implement measures of use. This must be an important factor in the selection of Web Service providers.
- f. Standard measurements used must be:
 - a. Number of unique visitors to a given part of the Web site per day/week/month etc..
 - b. Number of important transactions (e.g. registrations) started (per day etc);
 - c. Number completed (per day etc);
 - d. Average time to complete 1 transaction (e.g. registration of learner). This needs to be reported regularly to SETA Management as it is an important measure of the system, and indicates whether clients will be satisfied or not.
 - e. Comparison of average time taken for different activities – e.g. register learner, register assessor, apply for skills grant. This will give an indication of where any deficiencies are in the system, or usage or in training of users.

APPENDIX D - DETAILS OF CONSULTANT'S ACTIVITIES

Activities undertaken were primarily in the form of meetings with numerous officials and SETA associated people.

1.1 Initial Scope

Meetings were held with:

- 12th February Briefing, Peter Fraser (Background (at Khulisa).
- 10th April Peter Fraser Background (at Khulisa).
- 15th April Introduced to SETA staff.
- 16th April Background received from Peter Fraser and Mike Levy (SMME Project).
- 16th April Provided with office, email address etc at the SETA.
- 16th April Preliminary discussions with Ravin Deonarain (SETA Executive) and Selvan Naicker (Finance and IT).
- Four Praxis members interviewed Thursday (17th April).
- 17th Apr Selvan Naicker.
- 22nd Navin Behairelal (Support), Kgomotso Sidiane (DataNet): Lisa Seeley-Herbert (Project Manager), Salim Omar (Great Plains).
- 23rd April Ravin D (SETA Executive), Selvan N (Finance and IT).
- 24th April PRAXIS: Mohammed Areff (Business Development).
- 25th Apr Krappie Eloff (SETA Quality).
- 30th Apr Liezl Gerrytz (SETA Chamber Manager), (Information availability/system usefulness).
- 2 May Selvan N (Finance and IT).
- 6th May Blanche Engelbrecht (Skills Planning Manager)(Information availability /system usefulness).
- 6th May Progress meeting (SETA/Praxis) attended (SelvanN; LiezlGerrytz; Blanche Engelbrecht E; KrappieE + LisaS; MohammedAreff.
- 7th May Background to SETAs (general) Mohamed Aref, Lisa Seeley Herbert (Praxis)
- 6th May Discussion: Beryl York and Nat Mbengwa; and obtained initial insights from them.
- 9th May Discussed a number of SETA organizational level weaknesses and needs with BerylYork, NatM and Ravin D.
- Tue 13th May. Bronwyn Meredith. Re Web site - to clarify interfaces and Web/Database development.
- Thur 15th Navin Behairelal: IT Issues. Meeting at Praxis (Parktown).
- 16th May Frank Groenewald: CEO Bank SETA (+Beryl; Nat) – Differences in approach/ environment.
- Fri 16th May Selvan: Hardware/S/W Issues.
- Fri 16th Beryl York & Nat Mbengwa - OD issues.
- Tue 13th May Bill Sneddon (Process mapping for ISO9000 certification) . Re Process documents. Sight of 36 different diagrams requested, they were made available Friday.
- 16th May Ravin D: Fri - IT Issues/Preliminary feedback.
- 19th May Ravin; SETA Management Committee.
- 21st May Lisa Seeley Herbert (Praxis).
- 29th May Navin Beheiralal (Praxis Outsourcing support Manager).
- 30th May Selvan N (IT Issues); Ravin D.

- 29th May Nayna Manga Auditor General's dept – doing audit of SETA (segregation of responsibilities required. etc).
- 30th May Ravin D, Derek Weston (Executive, Forestry SETA), Nelius Volschenk (Executive, Insurance SETA) (Data quality and availability from SA Revenue Services/Dept Labour).
- 4th June Selvan N (IT Issues).
- 4th June Praxis : Navin (Outsourcing support Manager)(e-mail and other technical problems); Lisa Seeley Herbert (Project Manager)(Project issues).
- 5th June Potential Service provider (Server room inspected).
- 11th June SETA: Ravin D. & Selvan N.- Proposal for IT service provision.
- 11th June Ravin D) - Planned meetings with Praxis.
- 11th June Selvan N - IT Issues.
- 12th June Tighten Feedback on Information needs (Blanche Engelbrecht, Krappie Eloff).
- 12th June Potential Service Provider (discuss Proposal).
- 12th June Potential Service Provider (Assess Server condition).
- 13th June Potential Service Provider (Proposal and background).
- 13th June Praxis Mish Middleman (Praxis CEO).
- 17th June Ravin D & Mish Middelmann (Determine the way forward).
- 20th June SETA Council (Presentation - Report Back).
- 20th June Selvan N (IT Issues).
- 18th June Blanche Engelbrecht; Liezl Gerrytz: Tighten Feedback on Information. needs.
- 26th Mish Middelmann & Ingrid Obery (Praxis) + Ravin D, Blanche Engelbrecht and Liezl G. (SETA)(Structure the approach for addressing the software way forward (DataNet)).
- 26th/27th June Selvan N)(IT Issues).
- 26th June. Tighten feedback on Information needs: Selvan Naicker, Imaleng Mothibi, Mashumi Tutu, Liezl Gerrytz.
- 14th July Finalisation meetings were held with Pathways (new networking and hardware service provider).
- 15th July Financial negotiations between Pathways and SETA (Selvan) were satisfactory and a confirmatory meeting held on Tuesday.
- (8th).Further Web company with different characteristics interviewed. Possible breakthrough with Web design provision.
- Discussion (Liezl - 1st Aug) on Marketing / Web improvement – she wanted to delay presentation on improved capability for now.

The above covered the originally planned work

Approval was given at the beginning of July for further effort to address the identified software problems involving DataNet.

1.2 DataNet Revision/Enhancement

The consultant was involved with the following meetings:

Tuesday 1st- Friday 4th July, 2003

- 3rd July - Second meeting to structure DataNet Approach and prioritise aspects: Mish Middelmann & Ingrid Obery (Praxis) + Ravin D, Selvan N, Blanche Engelbrecht and Liezl G. (SETA) (Plan and Prioritise DataNet corrections/improvements);

- 2ndJuly - Detailed discussion of Improvements to the ETQA process: Krappie Eloff(SETA) + Ingrid Obery+ Kgomotso Sidiane (Praxis)(.) (Present process very unfriendly to users.)

Monday 7th - Friday 11th July, 2003

- Meeting to clarify outstanding DataNet work and how it relates to improvements and prioritise aspects. Touched on process.) Ingrid Obery + Kgomotso (Praxis), Blanche Engelbrecht and Liezl G. (SETA)(Wednesday 9th)
- Ingrid Obery + Kgomotso Sidiane (Praxis) + Blanche Engelbrecht and Liezl G. (SETA)(Friday 11th July) (Detailed improvements to the process.) (Present process very unfriendly to users.)
- Meeting to cover capability of another local company (Strengths in Strategic Marketing, Technical (email or Web response analysis etc) and Web design.) Appears to be a solution to the Service provider issue regarding Web services. Detail passed to Liezl G.for assessment.

Monday 14th - Friday 18th July, 2003

- (16th). Datanet Steering meeting to clarify DataNet work and prioritise aspects was held Wednesday (Mish M, Ingrid Obery + Kgomotso Sidiane (all from Praxis), Ravin D., Sevan N., Blanche Engelbrecht Liezl G, Krappie Eloff(all from SETA) + myself (Wednesday 16th July). (Agreed several steps, uncovered several points of disagreement between SETA and Praxis, and the way forward was mapped out for the next couple of weeks. Clarified outstanding DataNet work and how it relates to improvements.

Monday 21st - Friday 25th July, 2003

- The three main areas of DataNet software enhancement have now had processes defined pretty clearly and Praxis is working on detailed definition. Praxis plans to give detailed report back on 4th August.
- ETQA: A meeting to clarify DataNet enhancements was held on Friday with Praxis and Krappie Eloff– definition was improved – design seems now to be tight.

Monday 28th - Friday 1st August, 2003

- Discussion to ensure the completeness of Processes & Procedures for the IT work was held on Friday with Bill Sneddon (handling the SETA ISO 9000 Registration) and Winston & Nic (from Pathways). (To check and possibly tighten existing documents.)

APPENDIX E - IMPLEMENTATION OF RECOMMENDATIONS

No.	Recommendation	Ref. in Report	Status	Date Complete	Signature
Information					
1.	Advise DOL that inadequate information from SARS appears to be causing fruitless expenditure on the part of the FoodBev SETA.	4.6	Not Yet Done		
2.	Obtain better quality Input Data (Via DOL)	4.6	Not Yet Done		
Equipment and Environment					
3.	Move FoodBev Servers to secure environment. UPS; Access control; fire monitoring etc	4.1	DONE		
4.	Move FoodBev Networking & Hardware Support.	4.1	DONE		
5.	Backup Process to be re-organised and procedure in place.	4.2	Underway		
6.	Purchase 2 new Current generation servers entry level to replace 2 troublesome servers. Recommended for 3 rd qtr 2003 – i.e. fairly urgent.	4.3	DONE		
7.	Purchase 10 new current generation PC's to replace outdated and very slow PC's (productivity improvement). Recommended for early next financial year. I.e. <u>important</u> but not as urgent as the replacement servers.	4.3	DONE		
8.	A Switch to replace 1 Network Hub. Will significantly improve the throughput to individual PC's.	4.3	Underway		
9.	Revisit FIREWALL issue (Basilisk vs ISA)	App C	DONE		
10.	Assess any further ways of improving the Network performance – further tuning probably still possible.	4.4/ 4.5	To be Done		
11.	Monthly reporting to include summary on Firewall, ISP and Web traffic.	4.11	To be Done		
12.	Standardisation of PC Setup (as much as is practical in order to ease standardisation, not to be pernickety).	4.4/ App C	Underway		
13.	Monitor ISP Bandwidth Ongoing accurate measurements on weekly basis of Dignet Line traffic.	4.5	---		
14.	Identify cause of slow Internet Speed of Access and address this cause.	4.5	To be Done		
15.	Decide on New ISP & additional Bandwidth.	4.5	---		
Network Topology and Organisation					
16.	1. Not all FoodBev users could use both Network printers - reconfiguration recommended.	4.4	---		
17.	2. Some printer problems could not easily be cleared. There is a possible problem with printer drivers.	4.4	---		
Web Services					
18.	Clear Plan for Web Strategy	4.8	---		
19.	Single Person/organisation to oversee the Web side of the Seta, and to be responsible and accountable for regular (weekly) performance measurements	4.8	---		
20.	Clear measurements of Traffic to different parts of the Web site: Includes Number of unique visitors (weekly Stats per section; Number of operations started; Number completed; Average time taken.	4.9	---		
21.	RELAUNCH of Web link to DataNet – once DataNet is stable	4.7	---		

	and user friendly. (Needs to be done as a <u>properly planned marketing exercise.</u>) (See below).				
22.	Customer Satisfaction Survey of Web clients – with varying questions – to be asked on an 8-12 week cycle. Survey to be handled by an organisation that has previously successfully monitored and analyses responses.	4.8	---		
23.	Mass emailing to be outsourced to a company (like Mustard seed marketing) who will monitor responses and give analysis.	4.9	---		
Software - Great Plains & DataNet					
24.	Working for a Win Win Software solution : <ul style="list-style-type: none"> • Great Plains - Done • DataNet – Underway 	4.7	---		
25.	Monitor and Resolve technical issues : 'Hanging'. Newly 'saved' data not being stored.	4.7	---		
26.	Confirm that Terminal Services is giving better performance for 'Great Plains'	4.7	---		
27.	Reintroduction of the Web link to DataNet to be done in integrated manner <u>once DataNet is been tested to be stable</u> and user friendly. (See also the Web aspects above.)(Technical aspects focus.)	4.6	---		
Personnel & Training & Other S/W					
28.	Accounts Person between Financial Manager & Rebecca – Review need for this.	4.10	---		
29.	Monitor IT Training Needs	4.12	---		
30.	Provide Microsoft Project for Project Planning and Control (before training starts).	4.12	---		
31.	Provide training on Microsoft Project for key users.	4.12	---		
Policies and Procedures (Each Policy should have one or more procedures associated with it. E.g. Backup Policy must be supported by a Backup procedure - the Networking Service Provider may be required to produce a Backup Procedure for scrutiny and approval by the SETA IT Manager.)					
32.	Policies and procedures below to be in place (completed and signed within 90 days of Pathways taking over – i.e. by 31 October.)	4.11	---		
33.	Policies and procedures to be reviewed and confirmed annually.	4.11	---		
34.	Disaster Recovery Plan in place.	4.9	Underway		
35.	IT Plan to be in place.	4.9	---		
36.	Backup Policy to be in Place.	4.9	---		
37.	End User Computing Policy to be in Place.	4.9	Underway		
38.	Service Level Agreement – Pathways	4.18	Underway		
39.	Service Level Agreement - Praxis	4.18	Underway		

Appendix F

FoodBev SETA



IT & INFORMATION ASSISTANCE REPORT
PRESENTATION TO THE

FOODBEV SETA MANAGEMENT COMMITTEE:

Presented by:
John Hewson
August 2003



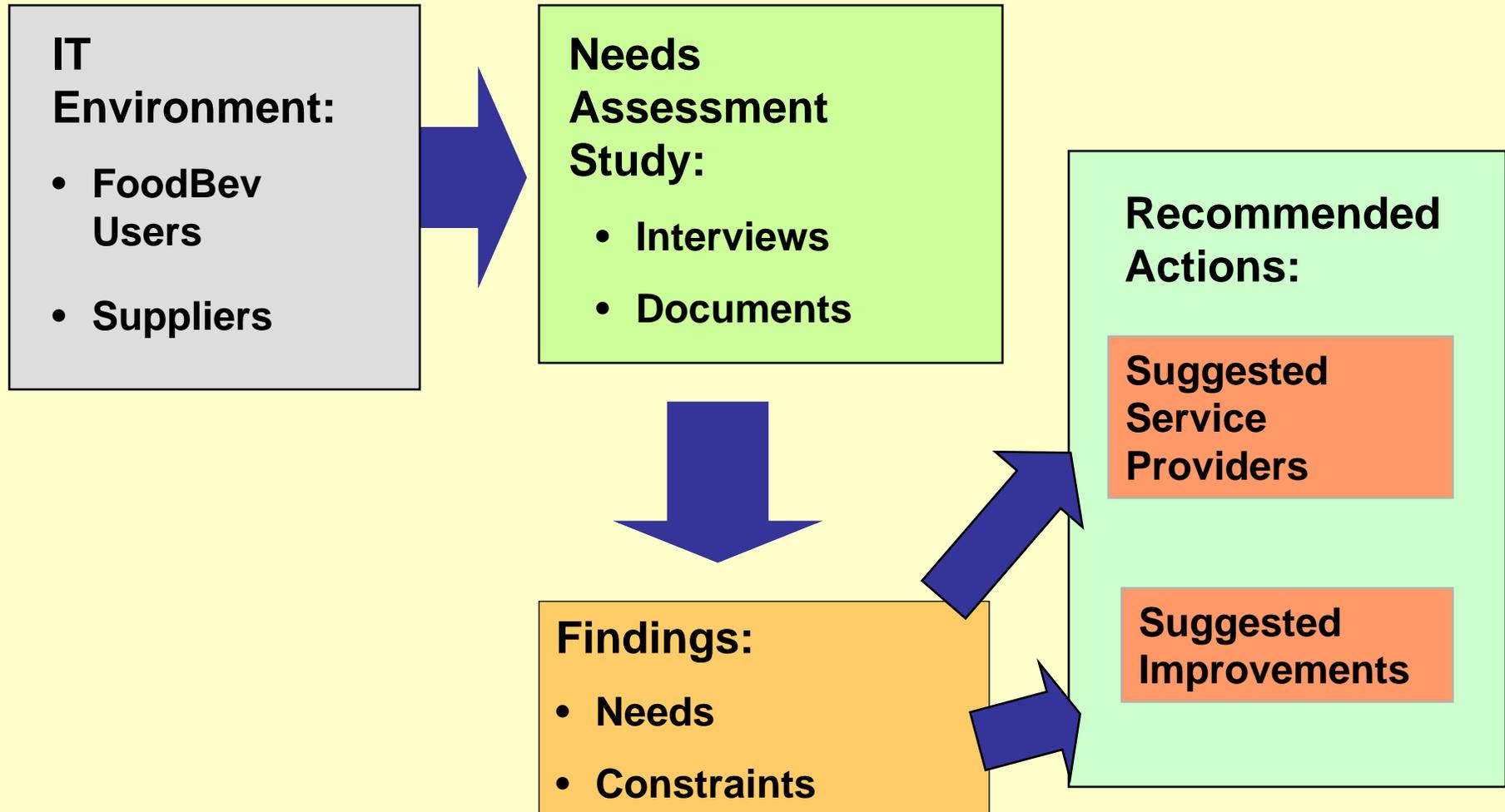
Technical Assistance Objectives

Assist the FoodBev SETA in identifying and addressing IT needs.

Key objectives:

- **Assess the IT, Information and Software Needs.**
- **Assess Current IT Infrastructure.**
- **Hardware and software Needs Analysis to identify Gaps**
- **Draft report and Terms of Reference.**
- **Assist with selection of appropriate IT Service providers.**

Technical Assistance Approach



Overall need:

**To develop the right instrument so we
can sing together!!**



FINDINGS

- Source Information – Seriously Inadequate.
- Physical – Seriously Inadequate.
- Data Backup and Safety – Inadequate
- ISP & Web – Concerns.
- Hardware – Strengthening required.
- Software – Unfriendly to user and inefficient.
– Improve Functionality & design.
- Policies and Procedures – not adequate at this stage.

INITIAL STATE

- **Input Data seriously inadequate.**
- **Poor physical security.**
- **Extremely difficult to get ISP & Web measurements – very poor reflection on providers.**
- **Some Hardware Needs (including Server)**
- **Data Capture problems.**
- **Serious Risks to Data – Backup definitely , Hacker?**
- **Current Software System not adequate &**
- **System not helping staff to work excellently.**
- **S/W Provider very keen to learn and to provide excellent service.**
- **Major improvement possible.**
- **A strategy to control IT costs is practical.**

FOODBEV SETA NEEDS

- Better DOL Source Information.
- Physical security for IT equipment.
- Data Security – Backup & Hacker.
- Some H/W & Networking Improvements.
- System reliability.
- Management system, Not Information system!
- (Actually Need Decision Support System!)
- Appropriate Functionality (S/W).
- Improved Design (S/W).

RECOMMENDATIONS

- **DOL Source Information – Lobbying required.**
- **Physical environment – Major changes recommended.**
- **ISP & Web – Clarification still required.**
- **H/W – Some tightening/Replacement.**
- **Data – Better backup/security/Hacker Protection.**
- **S/W – Partnership with Developer required.**
- **S/W focus on helping user.**
- **Monitoring and Measurement MUST be in place.**
- **Recommended Policies and Procedures must be put in place**

ACTIONS TAKEN

- **DOL Source Information – Issue Raised**
- **Networking Service Provider changed.**
- **Physical Location – Servers to Safer environment.**
- **2 Replacement Servers in place.**
- **10 new Workstations in place.**
- **Data – Better backup/security – Philosophy + Offsite.**
- **S/W – Partnership with Developer underway.**
- **Philosophy enforced - S/W to help user.**
- **Policies, Procedures & Other Docs in place or coming**
- **ISP & Web – Issues raised.**

ACTIONS STILL REQUIRED

- **DOL Source Information – High Level Lobbying reqd**
- **Physical environment – Major changes done.**
- **ISP– Clarification still required.**
- **Web – Clarification/re-organisation Required.**
- **H/W – Ongoing tuning/'tweaking'-Servers+Network.**
- **Data – Better backup/security - to be monitored.**
- **S/W – Strengthen partnership with Developer.**
Policies & Procedures – still being implemented.
- **Service Level Agreements – to be finalised.**
- **Ongoing Performance Measurement is necessary.**



Questions ?



Now Let Us **SING!!!!!!**



THANK YOU!



FoodBev SETA

FOODBEV TECHNICAL ASSISTANCE REPORT PRESENTATION TO THE DEPARTMENT OF LABOUR

Presented by:
John Hewson
August 2003

