S v Ndiki and others
[2007] 2 All SA 185 (Ck)

Division:	Bisho High Court
Date:	13 November 2006
Case No:	CC35/2005
Before:	D Van Zyl J
Sourced by:	SV Notshe
Summarised by:	D Harris

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Evidence – Computer evidence – Court's approach to determination of admissibility set out.

Editor's Summary

The accused in this matter raised an objection to the admissibility of certain documentary evidence which the State intended to use in the trial. The documents consisted of computer generated printouts.

Held – Computer evidence which falls within the definition of hearsay evidence in section 3 of the Law of Evidence Amendment Act 45 of 1988 may become admissible in terms of provisions of that Act. On the other hand evidence that depends solely upon the reliability and accuracy of the computer itself and its operating systems or programs, constitutes real evidence. Section 15 of the Electronic Communications and Transactions Act 25 of 2002 treats a data message in the same way as real evidence at common law. It is admissible as evidence in terms of subsection (2) and the court's discretion simply relates to an assessment of the evidential weight to be given thereto.

Having regard to case law, the Court drew the following conclusions. It is not desirable to attempt to deal with computer printouts as documentary evidence simply by having regard to the general characteristics of a computer. It is an issue that must be determined on the facts of each case having regard to what it is that the party concerned wishes to prove with the document, the contents thereof, the function performed by the computer and the requirements of the relevant section relied upon for the admission of the document in question.

The approach to the admissibility of documentary evidence consisting of computer printouts is as follows. The first step is to determine the aim of the State, ie the purpose it wishes to achieve by the introduction of the documents in question. In the present case, the question was whether statements of fact in the documents in question could be used to prove that those facts were true. Whether such statements constituted hearsay had to be determined by having regard to the provisions of section 3 of the Law of Evidence Amendment Act. The definition of hearsay extends to documentary evidence. The statements which the State sought to rely on *in casu* were found to be admissible in terms of the above legislation, and the objection raised by the accused was dismissed.

Notes

For Evidence see:

- *LAWSA* Second Edition (Vol 9, paras 677–847)
- Zeffertt DT *The South African Law of Evidence* 5ed Durban LexisNexis Butterworths 2003

Cases referred to in judgment

South Africa

United Kingdom

Judgment

VAN ZYL J:

Introduction

[1] At the commencement of the trial the accused gave notice that they object to the admissibility of certain documentary evidence the State intends to use in the trial. These documents (Exhibits D1–D9) consist of computer generated printouts. The issues the Court was in essence called upon to determine was the true nature of the computer printouts in question, the class of documents it represents and whether the admissibility thereof is sanctioned by any of the provisions in the relevant legislation dealing with the admission of documentary evidence. As a result an admissibility trial was held to determine the issues raised. The State called two witnesses whilst the accused elected not to present any evidence.

The legislation dealing with computer evidence

[2]
The admission of computer generated evidence is regulated by the Computer Evidence Act 57 of 1983 and section 15 of the Electronic Communications and Transactions Act 25 of 2002 (the "ECT Act"). The parties

were *ad idem* that the former Act does not apply to criminal proceedings, as is clearly evident from the preamble thereto (See too Zeffertt Paizes and Skeen *The South African Law of Evidence* at 393.) Counsel for the accused submitted that the ECT Act similarly does not apply because it came into operation after the alleged commission of the offences with which the accused are charged with in the present matter. Reliance was placed in this regard on the presumption against retrospectivity. The admission of inadmissible evidence or the refusal of admissible evidence, so it was argued, is a matter of substantive law and not one of simple procedure. It was accepted that if it is a matter of procedure it may constitute an exception to the presumption against retrospectivity and the provisions of the Act may apply (*Curtis v Johannesburg Municipality* 1906 TS 308 at 312).

[3]
In *Tregea and another v Godart and another* 1939 AD 16 at 31 Stratford CJ deals with this distinction and stated that in his opinion:

> "substantive law lays down what has to be proved in any given issue and by whom and the rules of evidence relate to the manner of its proof".

Whether or not a provision in an enactment is a procedural matter falls to be decided from the terms of the provision as read in context (*S v Heita and others* 1987 (1) SA 311 (SWA) at 3160A–B). A provision is considered "procedural" and may affect pending litigation, not only if it deals with a new procedure to be followed, but also with new rules relating to proof (See LC Steyn *Die Uitleg van Wette* 5ed at 90; *S v Heita* (*supra*) at 316B–C and *S v Stieler* 1978 (3) SA 38 (O) at 41A–C.)

[4]
That the ECT Act deals with the admissibility of computer evidence and the rules of evidence applicable thereto, is clear from a reading of section 15. The relevant portions thereof read as follows:

"(1)
In any legal proceedings, the rules of evidence must not be applied so as to deny the admissibility of a data message in evidence–

(*a*)
on the mere grounds that it is constituted by a data message; or

(*b*)
if it is the best evidence that the person adducing it could reasonably be expected to obtain, on the grounds that it is not in its original form.

(2)
Information in the form of a data message must be given due evidential weight.

(3)
In assessing the evidential weight of a data message, regard must be had to –

(*a*)
the reliability of the manner in which the data message was generated, stored or communicated;

(*b*)
the reliability of the manner in which the integrity of the data message was maintained;

(*c*)
the manner in which its originator was identified; and

(*d*)
any other relevant factor".

[5]

It does not follow of necessity that because a statute deals with procedure it must be treated as retrospective in its operation. It is clear from a reading of the case law that it is nothing more than a *prima facie* rule of construction and primarily the enquiry in each case must focus on the language of the enactment and the purpose and intent of the Legislature as

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it emerges therefrom (*Euromarine International of Mauren v The Ship Berg* 1986 (2) SA 700 (A) at 710A–J).

[6]

It was submitted on behalf of the accused that one of the strong considerations against retrospective operation of a statute, even if is procedural in nature, is whether unfair consequences might result or it might interfere with existing rights. (*Van Wyk v Rondalia* 1967 (1) SA 373 (T) at 375.) The basis of the presumption against retrospectivity is considerations of fairness (*National Director of Public Prosecutions v Carolus and others*[1] 2000 (1) SA 1127 (SCA) at paragraph [36]). It was argued that to admit evidence which would not have been admissible at the time when the offences were allegedly committed, would operate unfairly and be contrary to the right of an accused to a fair trial. This right, it was submitted, is a substantive right in terms of the Constitution (*S v Thebus and another*[2] 2003 (6) SA 505 (CC) at paragraphs [53], [106] and [108]).

[7]

As I shall attempt to show when I deal with the provisions of the Law of Evidence Amendment Act 45 of 1988, computer evidence which falls within the definition of hearsay evidence in section 3 thereof may become admissible in terms of provisions of that Act. Evidence on the other hand that depends solely upon the reliability and accuracy of the computer itself and its operating systems or programs, constitutes real evidence. What section 15 of the ECT Act does, is to treat a data message in the same way as real evidence at common law. It is admissible as evidence in terms of subsection (2) and the Court's discretion simply relates to an assessment of the evidential weight to be given thereto (subsection (3)). The ECT Act is therefore inclusionary as opposed to exclusionary. Section 3 of the Law of Evidence Amendment Act on the other hand operates exclusionary in that evidence falling within the definition of hearsay is not automatically admissible but is made subject to what is in the interests of justice (*Ndhlovu and others v S* [2002] 3 All SA 760 (SCA) at 767D–E).

[8]

The definition of "data message" in section 1 appears to be sufficiently wide to not only include real evidence but also hearsay evidence ("data generated, sent, received or stored"). This raises the question whether section 15 overrides the provisions of section 3 of the Law of Evidence Amendment Act when the evidence in issue consists of a data message. There is nothing specifically in the Act that says that it does not. In *Ndlovu v Minister of Correctional Services and another* [2006] 4 All SA 165 (W) Gautschi AJ however stated at 173F that "there is no reason to suppose that section 15 seeks to override the normal rules applying to hearsay". A contrary view is held by Schwikkard and Van der Merwe Principles of Evidence 2ed at 385. (See further *Zeffertt* op cit at 393–394.)

[9]

It must be accepted that the ECT Act must be read in the light of the Constitution and as giving effect to its fundamental values section 39(2) of the Bill of Rights). To the extent that this Act allows the admission of evidence that would otherwise not constitute "legal evidence", unless it is brought within the provisions of the Law of Evidence Amendment Act,

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or one of the recognised exceptions to hearsay evidence, there is in my view merit in the argument that it affects the substantive right of an accused to a fair trial in terms of the Constitution and should not operate retrospectively. I however do not intend to make any finding in this regard and will leave this question open. The

reason is that the documents in question may be admissible in terms of the laws relating to hearsay and the exceptions thereto.

[10]
It was further contended that the admissibility of the documents is also not sanctioned by section 3 of the Law of Evidence Amendment Act, section 34 of the Civil Proceedings Evidence Act 25 of 1965 and section 221 of the Criminal Procedure Act 51 of 1977. The objection raised is primarily based on the submission that the documents do not comply with the requirement of personality, that is, that the information contained therein, at least parts thereof, did not emanate from a person and "cannot be regarded as evidence given or confirmed by a person," Mr *Marais* for accused 5 and 6 described the documents relied upon by the State to constitute a "mixed bag" of information supplied by a person and information supplied by the system (paragraphs 11 and 14 of the heads of argument filed on behalf of the said accused).

[11]
In support of this submission reliance was primarily placed on the decisions in *Narlis v South African Bank of Athens* 1976 (2) SA 573 (A), *S v Harper and Another* 1981 (1) SA 88 (D) and *S v Mashiyi and another* 2002 (2) SACR 387 (TkD). Cutting away the frills, the suggested approach, based on the aforegoing decisions, is that a computer is not a person and if it carried out active functions, over and above the mere storage of information, the disputed documents are inadmissible. For the same reason the provisions of the Law of Evidence Amendment Act relating to hearsay evidence is also of no assistance because hearsay evidence only extends to oral or written statements, the probative value of which depends upon the credibility of a "person". (See *S v Mashiyi* (*supra*) at 390*d*–391*a* and 393*a*–*b*.)

[12]
As I would indicate hereinunder, such an approach to computer generated evidence is in my view incorrect and of very little assistance. It is an over simplification of the real issue and may result in otherwise admissible evidence be ruled inadmissible. It is based on findings that were made in reported cases where the Courts were giving meaning to the wording in the provisions of particular sections in the Civil Proceedings Evidence Act and the Criminal Procedure Act. Accordingly, a statement in the *Narlis* case (*supra*) such as "Well a computer, perhaps fortunately, is not a person" must be seen in the context of the particular section in the legislation considered by the Court at the time. In addition, certain statements in the *Harper* case (*supra*) which are being relied upon, is based on a misreading of the judgment of the Court.

The relevant case law

[13]
In the *Narlis* case the appeal dealt with the fact that the trial judge had allowed computerised records into evidence in terms of section 34 of the Civil Proceedings Evidence Act. The computer printouts consisted of details of a bank account and reliance was placed thereon in order to prove the existence of the principal debt in a case where the appellant was sued as surety and co-principal debtor. As I shall indicate later in the judgment,

section 34 creates an exception to the hearsay rule as regards certain documentary evidence. It provides that "a statement made by a person in a document" would be admissible as evidence of a fact if certain requirements have been met. The Court found that the section envisages that the maker of the statement must be a natural person and because "a computer . . . is not a person", the documentation in question could not be received in terms thereof. The Court consequently found that section 34 did not assist the respondent.

[14]
Two things are clear from this judgment: firstly, the Court regarded the computer as the maker of the statements contained in the documentation, and secondly, the statement regarding the nature of a computer was made in the context of the

wording and the foundation requirements of section 34. The *ratio* of this decision is therefore limited to a finding that where it is sought to make a document admissible under section 34, the requirements of the Act have to be satisfied and one of those requirements is that the maker of the statement must be a natural person.

[15]

The *Harper* case (*supra*) on the other hand was concerned with the provisions of section 221 of the Criminal Procedure Act. This section, which will be discussed in more detail later in this judgment, deals with the admissibility of certain trade or business records. The court considered the provisions of subsection (5) wherein the word "document" is defined to include "any device by means of which information is recorded or stored". Milne J firstly considered whether the computer itself, ie the machine, would fall under the extended meaning of a "document" in subsection (5). He assessed this question against the background of the general working of a computer and concluded that a computer did far more than the mere recording and storing of information as envisaged by subsection (5).

[16]

The learned Judge held that the extended definition of "document" in section 221 is accordingly not wide enough to include a computer "at any rate where the operations carried out by it are more than the mere storage or recording of information." (At 95F.) That he was dealing with the machine itself, as opposed to a printout produced by the computer, becomes more clear when the learned Judge continues by saying that:

> "Quite apart from that, however, how would the document, *that is in this case the computer*, be produced? Even if the section could be interpreted to mean that what must be produced is that part of the computer on which information is recorded or stored, that would mean the tape or disc on which it was stored, and this would be meaningless unless the electronic impulses on that tape or disc were to be translated or transcribed into a representation or statement intelligible to the ordinary human eye – or perhaps ear." (My emphasis.)

[17]

After concluding that a computer is not a document in terms of the extended meaning of the word in subsection 5, Milne J then proceeded to consider "the question as to whether or not a computer print-out is a document within the ordinary grammatical meaning of that word". (At 96D–97F.) He concluded that computer printouts were "documents" as contemplated by section 221 and then proceeded to establish whether the other requirements of section 221 had been satisfied (at 96H–97B). To summarise, the *ratio* of the *Harper* decision is, similar to the *Narlis* case (*supra*) that where it is sought to make a document admissible under section 221, the requirements of the relevant Act must be satisfied.

To that extent the extended meaning of a document in section 221 does not include a computer because it is more than a device "by means of which information is recorded or stored". Further, a computer printout is for purposes of section 221 a document within the ordinary grammatical meaning of that word.

[18]

As correctly pointed out by O'Linn J in *S v De Villiers* 1993 (1) SACR 574 (Nm) at 577F–J, the dictum of Milne J has been misread and that a general statement based on the *Harper* case to the effect that "in other words a computer print-out produced by a computer that sorted and collated information would be inadmissible," is not correct. This resulted in the issue regarding the admissibility of computer generated documents being approached from the wrong premises. (See for example Hoffmann and Zeffert *South African Law of Evidence* 4ed at 142; Skeen *Evidence and Computers* (1984) 101 *SALJ* 675 at 688 and *S v Mashiyi* (*supra*) at 391J–392C and 393*a*–*b*.)

[19]

In the *Mashiyi* case and also in *Ex parte Rosch* [1998] 1 All SA 319 (W) the respective Courts found that the provisions of section 3 of the Law of Evidence Amendment Act dealing with hearsay evidence were not applicable to the computer printouts presented as evidence. I shall more fully deal with these provisions and the

wording thereof hereinunder when I consider the nature and class of the documents in the present matter. In both these decisions the statements contained in the printouts on which reliance was placed, were found to have been generated by the computer itself without human intervention and that it can consequently not be said to constitute a statement "the probative value of which depends upon the credibility of any person" as envisaged by subsection (4). It was therefore not hearsay within section 3 of the Act. (See *S v Mashiyi* (*supra*) at 391I and *Ex parte Rosch* (*supra*) at 327F–G.) In the *Rosch* case the Court went on to consider whether the documents did not constitute real evidence. In *Mashiyi* (*supra*) the court failed to consider the effect of its finding that the documentary evidence in question was not hearsay evidence.

[20]

What is in my view clear from the aforegoing is that it is not desirable to attempt to deal with computer printouts as documentary evidence simply by having regard to the general characteristics of a computer. It is an issue that must be determined on the facts of each case having regard to what it is that the party concerned wishes to prove with the document, the contents thereof, the function performed by the computer and the requirements of the relevant section relied upon for the admission of the document in question.

[21]

How should the question relating to the admissibility of documentary evidence consisting of computer printouts be approached? As a point of departure it may be appropriate to restate the common-law position with regard to evidence generally, namely, that evidence tending to prove or disprove an allegation which is in issue is admissible unless a specific ground for exclusion operates. (See *R v Trupedo* 1920 AD 58 at 62 and *R v Katz and another* 1946 AD 71 at 78.) The first step is to determine the aim of the State, or put differently, the purpose it wishes to achieve by the introduction of the documents in question. (See for example *R v Ewing* [1983] 2 All ER 645 (CA) at 656). In other words, what fact does the State intend to prove with the document? What we are concerned

with in the present matter, and that is the basis on which the objection thereto was lodged, is whether statements of fact in the documents in question can be used to prove that those facts are true. At common law the answer to this depended upon the application of the rule against hearsay and its various exceptions. (See *Zeffert* et al op cit at 685–686.)

[22]

The position in our law at present is that hearsay evidence is now regulated by statute and more particularly section 3 of the Law of Evidence Amendment Act. This section expressly preserved the statutory exceptions enacted before 1988. Accordingly, in addition to evidence capable of being received under section 3, it may also be received under an existing statutory exception if the requirements thereof are satisfied. (See *Zeffert et al* op cit at 382.) Before I deal with the provisions of section 3 and the statutory exceptions that have been referred to by the parties in argument, it is necessary to establish what the State intends to prove against the accused persons and to examine the evidence presented during the admissibility trial.

The State's case

[23]

The accused are charged with the crimes of fraud and theft. In summary, according to the indictment the Department of Health and Welfare, Eastern Cape ("the department") ordered medical supplies from time to time from accused 6. The goods were delivered by accused 6 at the department's medical depot in Umtata. Upon receipt of the goods, a delivery note was signed by the clerk concerned which was then sent to accused 6. The said accused would thereupon issue an invoice for payment. Once the invoice is received, the clerk responsible for the payment of suppliers would enter the relevant information relating to the order that was placed

with accused 6 into the department's computer. The computer would then produce an amount for payment by using an "electronic 1460 transaction".

[24]

However, should the amount produced by the computer differ from the amount reflected in the invoice, the payment clerk would manually adjust the amount. When the amount is increased it is referred to as a "1461 transaction", and if decreased, a "1473 transaction" was performed. The allegation is that accused 1–4, all of whom were employed by the department, manipulated the system by performing 1461 transactions, thereby increasing the amounts payable to accused 6 whilst in truth these additional amounts were not due to the said accused. Accused 6 in turn is alleged to have deliberately manipulated its own records and banking methods in order to hide the additional amounts that were paid to it and which were not due.

The evidence

[25]

According to the evidence presented by the State in the admissibility trial the department used two operating systems, namely the Medical Supply Administration System ("Medsas system") and the Financial Management System ("FMS system"). The Medsas system was used to produce Exhibits D1, D2, D4 and D5 whilst Exhibits D7 to D9 were generated on the FMS system.

[26]

The purpose of the Medsas system was to facilitate the administration of the provision of supplies (stock) to the department and matters related thereto. The evidence was to the effect that it was used in connection with "stock holding, that is stock holding itself, the issuing, stock receiving, placement of orders, receiving, stock maintenance". Information regarding suppliers to whom contracts have been awarded for the supply of stock to the department is stored on the system. When an order is placed for a particular product the details of relevant contracted suppliers would be reflected in the database of the system. In addition, the system will also contain information in its database such as the unit prices of goods as well as existing stock levels. This information, the purpose whereof is to assist the relevant functionary in placing an order with a supplier, is referred to as a provisioning advice. If the functionary chooses to change the quantity of the product to be ordered, he would do so by using the computer to manually make the necessary changes on the provisioning advice. The computer would then with the press of a button produce an order form containing the information in the provisioning advice (Exhibit D1). Once the order form is printed, each with its own allotted order number, it would be checked by the relevant functionary and signed by him by appending his signature thereto. The order is then sent to the supplier and copies will be retained at the depot.

[27]

Once the stock is delivered by the supplier, the functionary at the depot would collect a copy of the order form so as to compare the quantity ordered against the stock received. He will enter the order number in the computer, the quantity received, and the number of the invoice or delivery note that accompanied the goods from the supplier (Exhibit D3). Because information, such as the actual quantity ordered and the details of the supplier, is already stored on the computer when the order was placed, such information would appear from the computer once the order number is entered thereon. Once this information has been captured on the computer, the computer will then be instructed by the press of a button to create a receipt containing all this information (Exhibit D2). Once printed, the receipt would be signed by the unpacker and the storeman who, by doing so, certify that the "abovementioned order has in every respect been properly executed, that the goods are correct according to specification and have been received in good condition".

[28]

Once that has been done, copies of the order form, the receipt note and the delivery note are sent to the depot's administration office where a receipt voucher (Exhibit

D4) would be created, once again with the assistance of the computer, reflecting the information in Exhibit D2. This document is similarly signed by the relevant functionary and certified to be correct. The functionary will also "post" the stock received by entering it onto the system as being available for distribution.

[29]

The receipt voucher will then be forwarded with Exhibits D1, D2, and D3 to the payment section where it will be placed in a file until an official invoice is received from the supplier. On receipt of this invoice it will be compared with the existing documentation and a payment transaction will be created on the computer so as to enable the department to effect payment for the goods supplied. When the transaction is entered the relevant system, namely the Payment Control System ("PCS system"), will

allocate a number for each transaction which number is then entered onto Exhibit D4, indicating that a payment transaction was performed in respect of that particular order. If any additional payments are to be effected to a supplier because of, for example, a price increase, the functionary will perform an additional transaction referred to as a 1461 transaction. If, for whatever reason an amount is to be recovered from a supplier, a 1473 transaction is performed. Once the transaction has been performed payment to the supplier in question is authorised.

[30]

This information is stored in the database of the Payment Control System. From this database transactions stored therein would be electronically "dumped" in a file in batches that will in turn be transferred onto the FMS system. This is done by simply activating a function in the system saying "download transactions". The FMS system will download a "feedback file" onto the Medsas system giving particulars of the FMS system date, the batch and series number in respect of each transaction recorded on the PCS system. The purpose of this is to indicate on the Medsas system that the payment transactions have been recorded and that it was downloaded onto the FMS system for payment. Once the payment transactions have been downloaded onto the FMS system, payment is effected by the printing of a cheque (Exhibit D9) and a report (Exhibit D7) by the computer. This is done by using the information received from the Medsas system. The FMS system would further produce an advice of payment, a copy of which will be sent to the supplier (Exhibit D8). In effecting payment to a specific supplier a number of transactions may be grouped together and one cheque and payment advice be issued in respect thereof.

The Law of Evidence Amendment Act 45 of 1988

[31]

The common law of hearsay no longer applies and what constitutes hearsay must therefore be determined by having regard to the provisions of section 3 of the Law of Evidence Amendment Act. In subsection (4) of section 3 hearsay evidence is defined to mean

> "evidence, whether oral or in writing, the probative value of which depends upon the credibility of any person other than the person giving such evidence".

The definition of hearsay quite clearly extends to documentary evidence. Whether or not the evidence contained in the document can be said to depend upon the credibility of a person, is a factual question that must in turn be determined from the facts and circumstances of each case. If a computer print-out contains a statement of which a person has personal knowledge and which is stored in the computer's memory, its use in evidence depends on the credibility of an identifiable person and would therefore constitute hearsay. On the other hand, where the probative value of a statement in the print-out is dependent upon the "credibility" of the computer itself, section 3 will not apply. (See *Ndlovu v Minister of Correctional Services and another* (*supra*) at 173 F–G.)

[32]

The question that arises is what the status is of printouts in the latter instance where the probative value of the statement contained therein does not depend upon

the credibility of a person? A typical case would be where information was recorded by mechanical means without the personal involvement of a human being. In *Ex Parte Rosch* (*supra*) the court

found that a computer print-out from a telecommunication company, reflecting information which was mechanically recorded by a computer regarding the time, the length of a call and the number to which the call was made, constituted direct evidence as opposed to hearsay evidence. (See also *R v Wood* (1983) 76 Cr App R 23 and *R v Minors; R v Harper* [1989] 2 All ER 208 CA at 212.) In such a case the acceptance of the evidence is dependent upon the accuracy and reliability of the operating system. Doubts as to the accuracy of the operating system may affect the reliability of the evidence and the evidential weight to be given thereto.

[33]

In the *Annual Survey of SA Law 1998* at 796 Bilchitz expresses the view that a broader approach should have been adopted by the court in the *Rosch* case (*supra*) to the computer print-out in question. The learned author says the following in this regard.

> "The 'probative value' of the computer printout lay in its capacity to function as proof that a phone-call had been made at a specific time. The person 'giving the evidence' was the one who produced it in court who in this case had nothing to do with the reliability or otherwise of the evidence. The fact that the phone-call was made at a specific time depended, however, upon the computer system of the telephone company having been properly set up. Thus, the probative value of such evidence could be said to depend upon the person who enabled the computer system accurately to register the information contained in the computer printout. This would tend to suggest that the computer printout did in fact constitute hearsay in terms of s 3. It would, accordingly, only be exceptionally admissible if it fell within one of the exceptions contained in s 3 (or in terms of another law such as the Computer Evidence Act). The test contained in s 3(1)(c) – that hearsay evidence may be admitted if it is in the interests of justice to do so – is sufficiently flexible to allow a court to consider the dangers inherent in the admission of such evidence as against the need for such evidence and the likelihood of its being correct."

(See also *Zeffert et al* op cit at 393–394.) This, in my view, seems to be a more preferable approach to computer generated evidence. It does away with the necessity to distinguish in each case between what would constitute hearsay evidence and what real evidence, a task that is not always without its difficulties. I do not however find it necessary for purposes of this judgment to make any finding in this regard

[34]

Turning then to the present matter, the facts the State is trying to establish with Exhibits D1 to D4, are that an order was placed with accused 6 for the supply of a certain quantity of a particular product; that accused 6 delivered the product to the department; that it was received; and that the payment of accused 6 was authorised. The person or persons who could give direct oral evidence of these facts are the functionaries in the department and the employees of accused 6 who were respectively tasked with the placing of orders, the processing of the order, the receiving of delivery of the goods and the authorising of payment to the relevant supplier.

[35]

The facts which the State intends to prove with these documents are therefore clearly dependent upon the credibility of a person or persons. In Exhibits D1–D4 those persons are identifiable because the functionaries concerned have appended their signatures thereto. The functionary who performed the 1460 or 1461 transaction is also identifiable because his or her unique identity number was recorded by the computer when he or

she activated the computer in order to perform the relevant transaction. That the functionaries or employees concerned used information that was already in the database of the computer to compile these Exhibits, does not in my view detract

from the hearsay nature thereof as defined in section 3. The computer was simply a tool used to perform the relevant task and create the documentation in support thereof.

[36]
Exhibits D5–D9 however stand on a different footing by reason of the fact that those documents were created without human intervention or assistance. Most of the information contained therein consists of data stored in the computer and of which one or more functionaries have personal knowledge of, for example Exhibit D6 which reflects the history of a particular product that was ordered from the relevant supplier. Although it was compiled by the computer, it consists of information that is reflected in Exhibits D1, D2 and D4 and which was stored in the computer. This information was processed by the computer and reproduced by it in a different format.

[37]
To the extent that the computer through its operating system processed existing information (Exhibits D5 and D8), did calculations and "create" additional information without human intervention, such as sequential numbers, the "creation" of cheques (Exhibit D9) and the recording of the identity of the person who operated the computer at any given time, such evidence in my view constitutes real evidence. As stated, the admissibility of this evidence is dependent upon the accuracy and the reliability of the computer, its operating systems and its processes as opposed to the credibility of a natural person. The duty to prove the reliability and accuracy of the system rests with the State. The parties were *ad idem* that this is a factual issue which is to be determined on the evidence as a whole.

The Civil Proceedings Evidence Act 25 of 1965

[38]
Sections 34–38 of this Act apply, by virtue of section 222 of the Criminal Procedure Act, *mutatis mutandis* to criminal proceedings. Section 34 allows for the mandatory admission of documents if certain requirements have been fulfilled (*United Tobacco Co Ltd v Goncalves* 1996 (1) SA 209 (W) at 215C–D). It provides that in any civil proceedings where direct oral evidence of a fact would be admissible, any statement made by a person in a document and tending to establish that fact shall on production of the original document be admissible as evidence of that fact, provided that the person who made the statement, either:

(*a*)
had personal knowledge of the matters dealt with in the statement; or

(*b*)
where the document in question is or forms part of a record purporting to be a continuous record, made the statement (in so far as the matters dealt with therein are not within his personal knowledge) in the performance of a duty to record information supplied to him by a person who had or might reasonably have been supposed to have personal knowledge of those matters. (Section 34(1)(*a*)).

[39]
Furthermore, the person who made the statement must be called as a witness in the proceedings unless he is dead or unfit by reason of his bodily or mental condition to attend as a witness or is outside the Republic, and unless it is not reasonably practicable to secure his attendance or all

reasonable efforts to find him have been made without success. (Section 34(1)(*b*)).

[40]
The person presiding at the proceedings may, if having regard to all circumstances of the case, he is satisfied that undue delay or expense would otherwise be caused, admit such a statement as evidence in those proceedings, notwithstanding that the person who made the statement is available but not called as a witness and notwithstanding that the original document is not produced, if in lieu thereof there is

produced a copy of the original document or if the material part thereof is proved to be a true copy. (Section 34(2)).

[41]

For the purpose of deciding whether or not a statement is admissible as evidence, any reasonable inference may be drawn from the form or contents of the document in which the statement is contained or from any other circumstances. (Section 34(5)). The weight to be attached to a statement admissible as evidence under section 34 lies within the discretion of the Court. (Section 35(1)).

[42]

It was submitted on behalf of the accused persons that the documents relied upon by the State, having been produced by a computer, were not made by a person as required by this section. As stated earlier, in the *Narlis* case (*supra*) the Court found that this section envisages the "maker" of the statement to be a natural person. I agree with Mr *Roothman* for the State that this is a very restrictive approach to the wording of section 34. It ignores the function performed by a computer in any given case. As stated, it is clear from the evidence that exhibits D1, D2 and D4 were compiled and produced with the assistance of a computer. It was simply used as a tool to produce a document in a particular form. On these facts it begs the question whether the "maker" of the document was not in reality the functionary concerned. I shall accept for purposes of this judgment that the finding in *Narlis* reflects the correct legal position. However, subsection (1) must be read with subsection (4) which deals with the conditions upon which a person is considered to have made a statement in a document. It reads as follows:

> "(4)
>
> A statement in a document shall not for the purposes of this section be deemed to have been made by a person unless the document or the material part thereof was written, made or produced by him with his own hand, or was signed or initialled by him or otherwise recognized by him in writing as one for the accuracy of which he is responsible."

[43]

As stated earlier, although exhibits D1–D4 were printed by a computer, it was compiled by a functionary or an employee with the assistance of the computer. After it was printed the said employee appended his or her signature thereto as envisaged by subsection (4). Exhibits D1–D4 were therefore for purposes of subsection (1) "made" by the person(s) concerned and the present matter must on the facts be distinguished from the *Narlis* case (*supra*). The same however does not apply to exhibits D5–D9 and must on the reasoning in *Narlis* be held not to comply with the requirements of section 34.

[44]

Although it was not submitted that the other requirements of section 34 had not been satisfied, a requirement that may be argued to prove troublesome in the present matter is whether the person or persons who made the statements in exhibits D1–D4 had "personal knowledge of the matters

dealt within the statement". As I have indicated earlier, the persons who compiled the order form or the receipt note in the present matter did so by also making use of information that was already stored in the computer. Examples thereof in exhibit D1 are the contract number for the supply of a particular product and the person or company to whom that contract was awarded. That information falls within the personal knowledge of another person who stored it at an earlier date within the database of the computer for future use.

[45]

A "statement" is defined in section 34 to mean any representation of fact, whether made in words or otherwise. It raises the question whether every representation of fact in the document must fall within the personal knowledge of the maker of the statement or whether it should be narrowly interpreted to only refer to the particular representation of fact in the document which the party concerned wishes to introduce into evidence. In the present matter an example of such a limited fact would be that the purpose of introducing exhibit D1 is to prove that an order was

placed with accused 6 for a certain product at a specified price. The answer lies in my view in the wording of section 34. Having regard to the fact that section 34 applies to proceedings where direct oral evidence of a *fact* would be admissible, that it refers to a statement in a document that tends to establish *that fact*, and that personal knowledge is required of the matters dealt within that *statement*, as opposed to in the *document*, I am of the view that personal knowledge is only required of such matters that tend to establish the particular fact in issue.

The Criminal Procedure Act 51 of 1977

[46]

Section 221 of this Act deals with the admissibility of certain trade or business records. It provides that in criminal proceedings in which direct oral evidence of a fact would be admissible, any statement contained in a document and tending to establish that fact shall, upon production of the document, be admissible as evidence of that fact if certain requirements are satisfied. The document has to be (or must form part of) a record relating to any trade or business and must have been compiled in the course of that trade or business, from information supplied, directly or indirectly, by persons who have or may reasonably be supposed to have personal knowledge of the matters dealt with in the information they supply. The person who supplied the information recorded in the statement in question must be dead or outside the Republic or unfit by reason of his or her physical or mental condition to attend as a witness, or it must be impossible, with reasonable diligence, to identify or find the person, or be reasonably expected, having regard to the time which has elapsed since he or she supplied the information as well as all the circumstances, to have any recollection of the matters dealt with in the information he or she supplied. (Sections 221(1)(*a*) and (*b*).)

[47]

For the purpose of deciding whether or not a statement is admissible as evidence under this section, the court may draw any reasonable inference from the form or content of the document in which the statement is contained. The court may, in deciding whether or not a person is fit to attend as a witness, act on a certificate purporting to be a certificate of a registered medical practitioner. (Section 221(2)).

[48]

In estimating the weight to be attached to a statement admissible as evidence, regard shall be had to all the circumstances from which any inference may reasonably be drawn as to the accuracy or otherwise of the statement; and, in particular, to the question whether or not the person who supplied the information recorded in the statement did so contemporaneously with the occurrence or existence of the facts stated, and to the question whether or not that person or any person concerned with making or keeping the record containing the statement had any incentive to conceal or misrepresent the facts. (Section 221(3)).

[49]

Counsel for the accused submitted that section 221 cannot assist the State. The reason advanced is that the disputed documents in the present matter do not only reflect data that was stored or captured by a person, but also contain information that "has been obtained after treatment by arrangement, sorting, synthesis and calculation by the computer. "(per Miller J in *S v Mashiyi* (*supra*) at 3906.) For purposes of this judgment this statement will be accepted as correct, at least insofar as exhibits D5–D9 are concerned. As stated earlier, this finding in the *Mashiyi* case was based on an earlier misreading of the *Harper* case (*supra*) by certain writers. What is in issue in the present case is whether computer printouts constitute a document for purposes of section 221, and not whether the computer itself is a "device by means of which information is recorded or stored" in accordance with the extended meaning of a document in subsection (5).

[50]

I am satisfied that a computer printouts produced by a computer that sorted and collated information would be admissible under section 221 if the foundation requirements thereof have been satisfied (*Zeffertt et al* op cit at 392). The printouts

in the present case are documents within the ordinary meaning of that word. They seem to fall within the category of a record relating to a trade or business. Otherwise than in terms of section 34(1)(a)(ii), the documents need not form part of a continuous record, but have to be merely a record or part of a record. (See further *R v Governor of Pentonville Prison and another, Ex parte Osman* [1989] 3 All ER 701 at 725–726.) Exhibits D1–D9 contain the history of a particular transaction namely, when and where the goods were ordered, when and where the goods were delivered, by whom the goods were received, when payment to the supplier was authorised and how and when payment was affected.

[51]

Section 221 does not require the record to be compiled by a person who has personal knowledge of the matters dealt with in the information. What is required is personal knowledge by the person who supplied that information. Who that person or persons are, is established by having regard to the fact or facts in issue which the State is trying to establish by its reliance on the documents in question. (*R v Ewing* (*supra*) at 656). Although, in relation to records produced by computer technology the information so supplied will often have passed through the hands of a chain of employees, such as in the present matter, section 221 extends its application to include the "indirect" supply of knowledge. Moreover, as stated in *R v Minors*; *R v Harper* (*supra*) at 213:

> ". . . in a great many cases the necessary evidence could be supplied by circumstantial evidence of the usual habit or routine regarding the use of the computer. Sometimes this is referred to as the presumption of regularity. We prefer to describe it as a commonsense inference, which may be drawn where appropriate."

[52]

Applied to the present matter, the statements the State intends to rely on in Exhibits D1–D4 were obtained from persons who have personal knowledge of the contents thereof. The information contained in those statements was then sorted and collated by the computer to produce Exhibits D5–D9. It was not submitted that any of the other requirements of section 221 have not been satisfied. The objection raised was limited to the submission referred to above and I consequently do not find it necessary to deal with the remainder of the requirements of section 221.

Conclusion

[53]

It seems that it is often too readily assumed that, because the computer and the technology it represents is a relatively recent invention and subject to continuous development, the law of evidence is incapable or inadequate to allow for evidence associated with this technology to be admissible in legal proceedings. A preferable point of departure in my view is to rather closely examine the evidence in issue and to determine what kind of evidence it is that one is dealing with and what the requirements for its admissibility are.

[54]

Finally, in dealing with computer evidence it must be recognised that computers are not infallible and that the dangers inherent in this type of evidence must be acknowledged and the necessary safeguards put into place. (See the remarks of *Bilchits* op cit at 794–795.) Both section 35 of the Civil Proceedings Evidence Act and section 221 of the Criminal Procedure Act leave it to the discretion of the Court what evidential weight is to be attached to statements admissible under the said sections. The reliability and accuracy of the computer and its operating systems are quite obviously relevant factors to be considered in the exercise of the Court's discretion.

[55]

For the aforegoing reasons the objections raised to the admissibility of exhibits D1–D9 are dismissed. Insofar as the statements contained therein constitute hearsay evidence and are not admissible in terms of the statutory exceptions in sections 34 of the Civil Proceedings Evidence Act or section 221 of the Criminal Procedure Act, such evidence is provisionally admitted into evidence.

For the State:
J Roothman

For the first and third accused:
Z Dotwana

For the second accused:
SG Manjezi

For the fourth accused:
NS Nombambela

For the fifth and sixth accuseds:
KH Naidu SC and *J Marais* SC

Footnotes

Footnote	
Also reported at [2000] 1 All SA 302 (A) – Ed.	1
Footnote	
Also reported at 2003 (10) BCLR 1100 (CC) – Ed.	2
Repealed Act	
Act 57 of 1983 has been repealed by s 92 of Act 25 of 2002	
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