

## GLOSSARY OF TERMS

Application:	a computer program, which performs a set of tasks forming a defined function or service.
Authentication:	a mechanism of using information resources to verify the claimed identity of a party to a transaction or an entity involved in a transaction.
Authorisation:	an authentication process whereby predetermined rights, including access to information resources, are granted to users or entities
Bandwidth:	measure of the capacity of a communications channel, expressed in bits per second
Broadband:	this transmission medium allows transmission of voice, data and video simultaneously at higher transfer rates. Broadband transmission media generally can carry multiple channels.
Browser:	software on the client's PC used to fetch/read documents from the Web, display them on-screen and print them, jump to others via hypertext, view images and listen to audio files
ccTLD:	country code Top Level Domain refers to a high level Internet Protocol address to identify a country e.g, za for South Africa
Confidentiality:	reasonable assurance that online or stored data cannot be viewed and interpreted by any person other than an authorised one.
Connectivity:	The capability to provide, to end users, connections to the Internet or other communications networks
Cyberspace:	the Internet/ electronic/ digital environment
Certification Authority:	a secure third party organisation or company that issues digital certificates used to create digital signatures and public key pairs. Certificate authorities guarantee that the

two parties exchanging information are really who they claim to be.

- Certificate:** a certificate is a public key that has been digitally signed by a trusted authority to identify the user of the public key. SET uses certificates to encrypt for example payment information.
- Click wrap contracts:** Contracts concluded in an online environment, usually the Internet, where the terms of a contract are set out and “offered” by one party on a website and the other party indicates “acceptance” of those terms by for example clicking on an “accept” button or icon and hence concluding the contract
- Copyright:** the right to retain or sell the rights to an artistic work. Copyright is a form protection to the authors or “original works of authorship” including literary, dramatic, musical, artistic, and certain other intellectual works.
- Cryptography:** practice of digitally “scrambling” a message using a secret key or keys.
- Device:** any electronic gadget with an ability to receive input (via a keyboard, or voice) or give output (via screen, or voice, etc.)
- Digital:** the representation of data by the bits and bytes of binary code. Vinyl records and cassette music tapes carry analogue media
- Digital Divide:** a term used to reflect the technological gap between countries that have fully exploited ICT and those that have not. The digital divide is often associated with the resulting gap in terms of economic development.
- Digital Certificate:** See Certificate
- Digital Signature:** Digital codes that can be attached to an electronically sent message to uniquely identify the sender.

Domain name:	A unique name, which represents each computer on the Internet.
Domain Name System:	The technical administration and allocation of domain names
EDI:	Electronic Data Interchange - is a de facto standard format for exchanging business data between companies computer application in a standardised form, but usually refers to as proprietary system of delivery.
Electronic Fund Transfer	- the electronic movement of money over secure private networks between banks' accounts
Electronic Money:	means of retail payments executed over Internet, which leaves other traditional electronic payments outside of its scope. Alongside with most commonly used smart card the term include: e-cards, trade cards, traditional credit, debit and stored value cards, as well as e-cash, digicash, digiwallet, e-credit, e-loans etc.
Electronic payments system:	an array of institutions and mechanisms ensuring the cash flow through electronic communications and timely provision of credit and settlements of debts at much less than traditional system could provide costs
Extranet:	a website links businesses to customers, suppliers, etc. for electronic communications.
Encryption:	the coding of data for the purpose of security or privacy
Gateway:	the link between networks and computers which allows messages to be routed across. Often associated with security measures.
Hardware:	the physical pieces of computer equipment needed to make up a system.
Hosting:	the storage and maintenance of the data making up the content of Websites.
Hyperlink:	a reference link that can be made from a point in one web page (traditionally in blue and underlined) to any other point on any web page on the World Wide Web.

ICT:	Information and Communication Technologies – a generic term used to express the convergence of information of information technology and communications. One prominent example is the Internet
Information-based economy:	refers to a country or region where ICT is used to develop economic foundation and market transactions
Interconnection:	The connection with each other of the telecommunications networks of different operators so that signals or services are transported over such interconnected networks.
Intellectual Property:	comprise two main branches: industrial property, which is chiefly in inventions, trademarks, and industrial designs and appellations origin; and copyright; chiefly in literary, musical, artistic, photographic and audiovisual works.
Integrity:	reasonable assurance that stored or online data which its intended destination without being modified in any unauthorised manner.
Internet:	the Worldwide collection of networks communicating through common languages and protocols. Also the basic infrastructure for the new economy over which information can be transferred, transactions made and work done
Internet Service Provider:	companies that specialise in linking organisations and Individuals to the Internet as well as providing services to them
Intranets:	using the same Internet technology, but hosted by private servers not accessible by the public over the Internet. Companies are using Intranets to facilitate their internal knowledge management, communication, collaboration on projects, HR functions, etc.
IP address:	the address which all computers and websites have to have on the Internet

- Knowledge-based economy – refers to a country or region where ICT is extensively used to enhance knowledge of society in general so that higher human capital brings further improvement to the economy
- Local loop: this portion of the telecommunications network physically connects end users to the central office network and generally is dedicated to that particular user.
- Multimedia: an interactive combination of text, graphics, animation, images, audio and video displayed by and under the control of a PC
- Public key cryptography: this encryption method requires two unique software keys for decrypting data, one public and one private. Data is encrypted using the published public keys and the unpublished private keys are used to decrypt the data.
- Portal: website which aims to be the starting point through which one enters the Web.
- Personal data: is any data, which refers to an identified or identifiable individual, which is not otherwise readily available via a public source(s).
- Permanent Establishment: a fixed place of business through which the business of an enterprise is wholly or partly carried on.
- Repudiation: when a customer in a credit card transaction denies having been a party to that transaction.
- Server: usually computer hub of a network, fulfilling servers' functions to client computers connected to it, such as storing files and databases and running applications.
- Shrink wrap contracts: Same as click wrap contracts except for the fact that the accept icon is actually a shrunk box containing the actual product or service itself e.g. software. Accepting this type of a contract results in an immediate on-line consumption

- Smart Card:** card containing memory and a microprocessor, that can serve as personal identification, credit card, ATM card, telephone credit card, critical medical information record and as cash for small transactions.
- Software:** computer programming which gives the hardware its usefulness through various functions the software can perform.
- Teledensity:** teledensity refers to the number of telephone lines per 100 people, a rough measure of the ubiquity of the public switched telephone network in a country.
- VPN:** Virtual Private Network - a VPN is a part of the public Internet to which access is controlled by firewalls and secure tunnels to enable private and secure use by authorised users
- Website:** pages of information linked to one another by hyperlinks (usually organised around a menu), with the main page (usually including the menu) bearing the domain address. These pages are on a Web server and are accessible from any browser on the World Wide Web.
- World Wide Web:** a collection of information located in many Internet servers that can be accessed with a browser or by navigating via hyperlinks.

## World Wide Web and other References

The following references identify key resources, documents, and policy information on the World Wide Web, concerning each of the main issues and sub-issues involved with the development of National Electronic Commerce Policy for South Africa. In most cases, the main referenced sites also point to other documents and resources on the Web, which further elaborate the issues, from the perspective of various governments, international organizations, and individuals.

### [UNCITRAL Model Law on Electronic Commerce](http://www.un.or.at/uncitral/texts/electcom/ml-ec.htm)

<http://www.un.or.at/uncitral/texts/electcom/ml-ec.htm>

Text and references for the UNCITRAL Model Law, adopted and proposed in numerous countries.

### ECEG (1998) 'Electronic Commerce: Building the Legal Framework'

Electronic commerce Expert Group, Commonwealth Attorney-General's Department 31 March 1998 at

<http://www.law.gov.au/aghome/advisory/eceg/>

### [Law and the Internet: Electronic Contracting](http://www.ljx.com/internet/zammit.htm)

<http://www.ljx.com/internet/zammit.htm>

New York Law Journal article on legal aspects of electronic contracts.

### [Report on Electronic Commerce Legal Issues by Edward Nathan and Friedland](http://www.ecomm-debate.co.za/docs/report.html)

[www.ecomm-debate.co.za/docs/report.html](http://www.ecomm-debate.co.za/docs/report.html)

### [OECD Ministerial Conference \(Ottawa\) Tax Policy Home Page](http://www.oecd.org/daf/fa/e_com/ottawa.htm)

[http://www.oecd.org/daf/fa/e\\_com/ottawa.htm](http://www.oecd.org/daf/fa/e_com/ottawa.htm)

Links to all major papers and policy discussions of the 1998 Ottawa OECD Ministerial Conference that focused principally upon e-commerce tax issues.

### [U.S. Internet Tax Freedom Act](http://www.ljx.com/internet/hr1054_105.html)

[http://www.ljx.com/internet/hr1054\\_105.html](http://www.ljx.com/internet/hr1054_105.html)

Full text plus relevant links for U.S. law restricting application of new taxes to Internet-based commerce.

### [Australian Tax Office Electronic Commerce Project](http://www.ato.gov.au/ecp/index.html)

<http://www.ato.gov.au/ecp/index.html>

Home Page for the 1996 ATO initiative which conducted a comprehensive review of Australian tax laws as related to electronic commerce.

[Veritex "Tax Cybrary" Cyber Tax Channel](http://www.vertextinc.com/taxcybrary20/CyberTax_Channel/taxchannel_70.html)

[http://www.vertextinc.com/taxcybrary20/CyberTax\\_Channel/taxchannel\\_70.html](http://www.vertextinc.com/taxcybrary20/CyberTax_Channel/taxchannel_70.html)

Summary and links for U.S. state-level tax policies and information relating to Internet commerce.

[World Trade Organization Declaration on Global Electronic Commerce](http://www.wto.org/anniv/ecom.htm)

<http://www.wto.org/anniv/ecom.htm>

Text of 1998 WTO Declaration of intent to institute a comprehensive work programme on trade-related aspects of global electronic commerce.

[Europe proposes a customs free web](http://www.techweb.com/wire/story/TWB19980222S0001)

<http://www.techweb.com/wire/story/TWB19980222S0001>

Article about European Union proposal to prohibit customs duties on Internet transactions.

[World Intellectual Property Organization \(WIPO\) Electronic Commerce Home Page](http://www.wipo.org/eng/internet/ecommerc/index.htm)

<http://www.wipo.org/eng/internet/ecommerc/index.htm>

Home page for WIPO treatment of e-commerce issues, with comprehensive background and reference information.

[World Trade Organization \(WTO\) Intellectual Property Home Page](http://www.wto.org/wto/intellec/intellec.htm)

<http://www.wto.org/wto/intellec/intellec.htm>

Home page for WTO treatment of intellectual property issues and trade, including the global treaty on Trade Related aspects of Intellectual Property rights (TRIPS) Agreement.

["Business on the Internet is Laden with Intellectual Property Risks"](http://www.ljx.com/internet/0318inbiz.html)

<http://www.ljx.com/internet/0318inbiz.html>

New York Law Journal article on Intellectual Property concerns involved with electronic commerce.

Australian National Advisory Council on Consumer Affairs (NACCA).

<http://www.isr.gov.au/consumer/eleccomm/html/protect.html> .)

Australian Review of Policy relating to Encryption Techniques (The "Walsh Report", 1992), section 3.7.6:

Dorothy E. Denning in her paper *CFP '93 - To Tap or not to Tap* (ACM 36 (1993), pp 24 - 30), the report of the Electronic Privacy Information Center (EPIC) entitled *Cryptography and Liberty 1999*

<http://www.oecd.org/dsti/sti/it/secur/prod/crypto2.htm>

UK government has taken: According to a *Draft Regulatory Impact Assessment of the Draft Electronic Communications Bill* (DTI, July 1999, Unique Reference Number URN99/1020):

*U.S. Cyberspace Electronic Security Act of 1999*

*American Bar Association's Digital Signature Guidelines (1996)*

#### [Privacy Protection on Global Networks](#)

<http://www.oecd.org/dsti/sti/it/secur/act/privnote.htm>

Official source for OECD positions on privacy issues in global telecommunications. Refers to seminal 1980 policy guidelines on privacy and transborder data flows. Offers summaries of, and links to, all recent OECD position papers, discussion documents, and work group outputs from conferences dealing with privacy issues.

#### [Privacy and the National Information Infrastructure](#)

Safeguarding Telecommunications-Related Personal Information

<http://www.ntia.doc.gov/ntiahome/privwhitepaper.html>

Official Paper of the United States National Telecommunications and Information Administration (NTIA) of the Department of Commerce, issued in October 1995. Emphasise issues of privacy in relation to personal data obtained through use of telecommunications and information services. Seeks minimum industry standards, largely through self-regulation, to require notification of users by service providers about their privacy policies, and consent of users for dissemination of their personal data.

#### [Privacy and Electronic Commerce](#)

<http://www.doc.gov/ecommerce/privacy.htm>

More recent policy paper (June 1998) by the United States Department of Commerce on privacy issues generally involved with e-commerce. Describes international consensus on principles for privacy protection, and options for implementing those principles (legislative vs. self-regulation). Identifies the U.S. policy approach as a combination of these methods. Also includes useful international examples and survey of basic questions to be raised in establishing a national policy.

#### [Electronic Privacy Information Center \(EPIC\)](#)

<http://www.epic.org/>

Home page of the EPIC, an advocacy group based in the U.S. Takes strong positions in favour of protecting privacy and consumer rights in Internet and related technology settings. Links to other international privacy advocacy organisations.

#### [Security, Privacy and Intellectual Property Protection in the Global Information Infrastructure](#)

<http://www.nla.gov.au/archive/gii/oecdconf.html>

Proceedings of a joint conference between the OECD and the government

of Australia on privacy and other Internet data protection issues, held in 1996. Links to papers and other resources discussing these issues.

[Consumer Protection in the Electronic Marketplace](#)

[http://www.oecd.org/subject/e\\_commerce/ebooks/ecom1\\_4.pdf](http://www.oecd.org/subject/e_commerce/ebooks/ecom1_4.pdf)

An OECD summary document (in .pdf format) concerning consumer protection issues relating to electronic commerce.

[Germany Information and Communication Services Act](#)

<http://www.ljx.com/internet/11-12germany.html>

Detailed summary of comprehensive 1997 German legislation on all forms of electronic communication. Contains a variety of consumer protection provisions, including liability of ISPs, prohibition of certain content (hateful, inciting violence, etc.), and protection of children.

[Consumer Protection and Private International Law in Internet Contracts](#)

<http://rw20mit4.jura.uni-sb.de/RSchu/public/essay.htm>

Academic research paper on consumer protection issues relating to the Internet, specifically in the context of international commerce.

[Unsolicited Commercial Electronic Mail Choice Act of 1997](#)

<http://www.lclark.edu/~loren/cyberlaw97/avison/s771.htm>

Summary of and reference to a draft U.S. legislative bill concerning "spam" or unsolicited electronic mail advertising.

[Law Journal Extra, on e-mail legislation and litigation](#)

<http://www.ljx.com/internet/iremail.html>

An on-line law journal focusing specifically on laws and litigations surrounding electronic mail and consumer protection issues, principally in the United States. Links to details of many laws and cases.

[The OECD Cryptography Policy Guidelines and the Report on Background and Issues of Cryptography Policy](#)

<http://www.oecd.org/dsti/sti/it/secur/prod/e-crypto.htm>

Two reports, on background information and issues surrounding cryptography policy, and the official guidelines developed by the OECD for member countries to design cryptography laws. Dated March 1997.

[EU Data Protection Home Page](#)

<http://www.ispo.cec.be/ecommerce/dataprotect.html>

Links to the most recent Directives of the European Commission on data protection policy.

[U.K. Proposals for Encryption on Public Telecommunications Networks](#)

<http://www.coi.gov.uk/coi/depts/GTI/coi9303b.ok>

Summary of proposals released by the Government of the UK (June 1996) for addressing data protection and encryption issues. Includes discussion of "regulatory intent" for the use of encryption in public networks.

Utah (1998) 'Frequently Asked Questions Regarding Digital Signatures' at

<http://www.commerce.state.ut.us/web/commerce/digsig/dsfaq.htm>

[Digital Signatures and Digital IDs](#)

Verisign, Inc.'s overview of Digital signatures and IDs, technology and options.

[Digital Signature Law Survey](#)

<http://cwis.kub.nl/~frw/people/hof/DS-lawsu.htm>

A survey of digital signature legislation around the world.

[EU Digital Signatures and Encryption Home Page](#)

<http://www.ispo.cec.be/eif/policy/Welcome.html#digital>

Includes policy papers of the European Internet Forum, and the Proposal of the European Commission for a European Parliament and Council Directive on a common framework for electronic signatures.

[Legal and Regulatory Issues concerning the TTPs and Digital Signatures](#)

<http://www.cordis.lu/infosec/src/study2.htm>

A study sponsored by InfoSec of Europe to survey and evaluate the status of laws regarding digital signatures and trusted third parties in all European Union member states.

[Japan Certification Authority Guidelines](#)

<http://www.ecom.or.jp/eng/output/ca/eng-guideline.htm>

Document issued by the Electronic Commerce Promotion Council of Japan, which presents guidelines for the operation of a certification authority.

[Certification Authorities for E-commerce - Public or Private?](#)

<http://www.uniform.org.nz/conferences/1998/papers/bradshaw.html>

Paper by Roger Bradshaw, New Zealand discussing the merits of public versus private sector control of certification authorities.

[The Role Of Certification Authorities In Consumer Transactions](#)

<http://www.ilpf.org/work/ca/draft.htm>

A report of the Internet Law and Policy Foundation (ILPF) Working Group On Certification Authority Practices; draft dated April 14, 1997

[An Introduction to Certification Authorities and Public Key Cryptography](#)

<http://www.anl.gov/ECT/certify/CA-Overview.html>

Paper prepared by Bill S. Halsey, Argonne National Laboratory (U.S.); revised October 2, 1996. Describes the main functions of Certification Authorities and the role of public

Department of Communications (South Africa)

<http://www.ecomm-debate.co.za>

United States Government E-Commerce policy

<http://www.ecommerce.gov/internat.htm>

European initiative on E-Commerce

<http://www.cordis.lu/esprit/src/ecomcom.htm>

Organisation for Economic Co-operation and Development (OECD)

<http://www.oecd.org>

World Trade Organisation (WTO)

<http://www.wto.org>

International Telecommunication Union (ITU)

<http://www.itu.int>

World Intellectual Property Organisation

<http://www.wipo.int/index-eng.html>

Internet Engineering Task Force (IETF)

<http://www.ietf.org/>

Canadian Model

<http://e-com.ic.gc.ca/english/index.html>

Singapore Model

<http://www.ec.gov.sg/>

E-commerce in Japan

<http://www.ecom.or.jp/ecom>

New Zealand Ministry of Foreign Affairs and Trade

<http://www.mfat.govt.nz>

APEC E-com Legal Guide

<http://www.bakerinfo.com/apec/Apecpar1.htm>

Afrinic

[www.afrinic.org](http://www.afrinic.org)

Internet Society of South Africa

<http://www.isoc.org.za>

### **Off-line References:**

1. Media Africa com. 2<sup>nd</sup> SA Web Commerce Survey 1999
2. The 1999 South African Electronic Commerce Survey by BMI-TechKnowledge Group
3. Building Confidence: Electronic Commerce and Development, United Nations Conference Trade and Development, 2000
4. Knowledge Societies: Information Technology for Sustainable Development, by Robin Mansell and Uta Wehn, 1998
5. OECD document: A Global Action Plan for Electronic Commerce, October 1999
6. Jeffrey Reisner, in an article in The Internet Newsletter (January 1997)
7. The EU Directive 97/7/EC on The Protection of Consumers in Respect of Distance Contracts

8. Article: Development of a Secure Electronic Marketplace for Europe by M. Waidner.  
ESORICS '96 (4<sup>th</sup> European Symposium on Research in Computer Security),  
Rome, INCS 1146, Springer-Verlag, Berlin 1996,1-14
9. Article: State of the Art in Electronic Payment Systems by N Asokan, P Janson, M Steiner, M Waidner  
IEE COMPUTER 30/9 (1997) 28-35
10. Report on Digital Rights Management Technologies for the International Federation of Reproduction Rights Organizations
11. Germany's Digital Signature Act: Federal Bill establishing the General Conditions for Information and Communication Services:  
Bundestagsdrucksache 13/7934 vom 11.06.1997

### **Local Academic Papers Commissioned by the Department of Communications:**

The Department of Communications had invited members of the academic community and other experts in the field of e-commerce to provide in-depth perspectives on various aspects of e-commerce. The ten papers were prepared and will provide readers or individuals with detailed information on each subject. The papers are available at the following website:  
<http://www.ecomm-debate.co.za>

1. Select Intellectual Property Implications of Electronic Commerce and Global Information Networks: Copyright, Trade Marks, and Databases by Coenraad Visser ([vissercj@unisa.ac.za](mailto:vissercj@unisa.ac.za))
2. Domain Names: A Legal Model for their Administration, and their Interplay with Trademarks by Coenraad Visser and Brian Rutherford
3. Contracting on the Internet: The Formation of Contracts, Trade Practices and Online Dispute Resolution by Tana Pistorius ([pistot@unisa.ac.za](mailto:pistot@unisa.ac.za))
4. A Comparative Survey of Legislative Initiatives on Select Aspects of Electronic Commerce by Tana Pistorius.
5. E-commerce and issues in the law of privacy by Julian Hofman ([hofman@law.uct.ac.za](mailto:hofman@law.uct.ac.za))
6. Cryptographic Dilemma: Possible Approaches to Formulating Policy in South Africa by Vivienne Lawack-Davids ([lwaval@upe.ac.za](mailto:lwaval@upe.ac.za))
7. In the Technology and Economics of the Next Generation Public Network: Regulatory Implications by John Joslin ([johncj@icon.co.za](mailto:johncj@icon.co.za))

8. Evolution of the Electronic Communications Regulatory Framework in the European Union by John Joslin
9. E-commerce and Poverty Alleviation in South Africa by Aki Stravrou, Julian May and Peter Benjamin ([akidra@iafrica.com](mailto:akidra@iafrica.com)).
10. Electronic Commerce Strategies for Small, Medium and Large Businesses by Andy Bytheway ([abytheway@uwc.ac.za](mailto:abytheway@uwc.ac.za)) and Yvette Goussard