A

abuse of dominance 126-127
downstream service providers 97-98
ex-post regulation 97-98
discriminatory price squeeze 97
non-discriminatory price squeeze 97
predatory price squeeze 97-98
access price regulation 93-94
backward-looking cost-based pricing 93
forward-looking cost-based pricing 93-94
long-run incremental cost (LRIC) 93-94
ADSL 66
UF Asymmetrical Digital Subscriber Line
definition of 67
equipment standards 169
pricing 62
transmission speed 54
Africa
regulation of telecommunications sectors 107-108
African Green Paper 113, 130
and the ITU 107-108
regulator financing 122
regulator independence 121
African Information and Telecommunications Policy Study Group (AITPSG) 107-108
Amatole Telecommunications Services (Pty) Ltd 337
An Accelerated Agenda Towards the Restructuring of State Owned Enterprises - Policy Framework 27
analogue
definition of 67
signals 67
television 60
versus digital 52-53
Annex on Negotiations on Basic Telecommunication 29, 108
Annex on Telecommunications 28, 136
Article 4 136
ANSI standards 76
anti-competitive practices
see competition
ARIN
management of IP addresses 64
Asymmetrical Digital Subscriber Line
see ADSL

asynchronous
definition of 67
Asynchronous Transfer Mode
see ATM
ATM 74
UF Asynchronous Transfer Mode
definition of 67
AT&T
matter between Telkom and others, and 113-114, 176-177
Australia
approach to interconnection 178
compare SA electronic communication with 285-286
convergence model 259
data retention 330
developing privacy legislation 285
electronic communication legislation 263
obligations placed on TSPs in 328
regulation of electronic communication 285-286
Austria, data retention 330
authentication services in terms of ECT Act 38

B

backbone, definition 67-68
backward-looking cost-based pricing 93
bandwidth, definition 68
Bangladesh
Grameen phone model 244
barriers to trade
principle of Gats 136
Basket Services 203, 206, 210-211
Baumol-Willig Rule
interconnection pricing 128
BGP
see Border Gateway Protocol
Bill of Rights 301
right to privacy 284
bits and bytes (per second)
definition of 68
Black Economic Empowerment Charter for the ICT Sector (Jun 2005) 337
Bluetooth 58
definition of 68
Bokamoso Consortium (Pty) Ltd 337
Index

Bokone Telecoms (Pty) Ltd 337
Bolivia
use of co-operatives to expand access to unserviced communities 243
border gateway protocol (BGP) 63
definition of 68
Botswana
funding model 129
telecommunications regulation in 101-102
Botswana Telecommunications Authority (BTA) 102, 122
broadband technologies 65-66
ADSL 66
cable/cable television 65-66
definition of broadband 68
free space optics 66
microwave 66
WiFi 66
wireless LAN 66
broadcasting
legislation that regulate broadcasting in SA 256-257
Broadcasting Act 257
IBA Act 256
policy and legislation 252-253
broadcasting policy and legislation
areas for review in future policy 252-253
objectives 252
Broadcasting Act, 4 of 1999
amendment in 2002 111
Icasa performs powers and duties in terms of 33
legislation under which Icasa operates 110, 129
Section 37 – establishment of Frequency Spectrum
Directorate 105-106
Broad-Based Black Economic Empowerment Act 337
Browser 68
examples 68
buffer, definition of 68
business
interception of communications in 313-318
direct communications 314
indirect communications 314-318
business to business (B2B)
definition of 69
business to consumer (B2C)
definition of 69
C
cable television 61
cache, definition of 69
call-back operations
legislative requirement 138
caller line identity (CLI) 193
Calling Line Identification
equipment standards 169
Canada
Canadian Internet Registration Authority (CIRA) 280
data retention 330
developing privacy legislation 285
electronic communication legislation 263
ex-ante approach to interconnection 178
interception monitoring legislation 298
regulation of electronic communication 285, 288-289
use of SDH 77
use of SONET 78-79
use of PDH 76
carrier of carriers
Sentech licensed as 251
carrier pre-selection regulation promulgated 340
changes as in postscript 340
implementation concern 47
Cartels 95-96
C-band and KU-based satellite 61
Cell C (Pty) Ltd 153-154
community service obligations 234-235, 238
exempted from complying with COA/CAM 212
fixed links 174
licence 209
licensing controversy 115, 117-118
legal action – third cellular licence 154-156
third cellular operator 251
cellular phones and SIM-cards 331
ROICA provisions 331
 cellular service providers
pre-paid 331
ROICA provisions 331
Certificates of Proficiency
frequency licensing 166
Chart of Accounts and Cost Allocation Manual
see COA/CAM
Chile
approach to interconnection 178
compatibility and standards
telecommunications services 87-88
competition
anti-competitive practices, leasing 175
unbundling 175
Competition Act, 89 of 1998 17, 35-37, 106-107
Chapter 2 36, 124
Chapter 3 – mergers 36, 124
Chapter 5 36-37
competition regulation 124
economics underlying prohibited practices 96-98
abuse of dominance 97-98
restrictive horizontal practices 95-96
restrictive vertical practices 96-97
functions 37
legislation that regulate communications in SA 256
promulgation of 26
Section 3 – all economic activity in SA 35
Section 21 35-36
Section 78 37
Section 79 37
Section 82 35-36, 106
Competition Appeal Court
appointment of members 106
competition regulation 106
establishment of 37
functions 37, 106-107
Competition Commission 35, 48, 130
agreement entered into with Icasa (16 Sep 2002) 36
Competition Commissioner 106
competition regulation 106, 124
core functions 106
establishment of 37
Investigation of complaints 36
Memorandum of Agreement with Icasa 124-125
mergers 36-37
regulatory process regarding competition 101
relationship between Icasa and 124-125
responsibilities 256
Competition Commissioner 106
competition policy 26
Proposed Guidelines for Competition Policy – A
Framework for Competition, Competitiveness and
Development (1997) 26
competition regulation 90-91, 123-128
objectives of regulation of competition in
telecommunications 125-127
relationship between the Competition Commission and Icasa 124-125
sector-specific regulation versus general competition regulation 127-128
telecommunications regulation and competition 123-124
Competition Second Amendment Act, 39 of 2000 35
Competition Tribunal
Chairperson 106
competition regulation 106
complaints adjudication 36
establishment of 37
functions 37, 106
mergers 37
responsibilities 256
competitors
licensing of additional, concern 47-48
compulsory interconnection 85-86
Comsec Act
see also Electronic Communications Security (Pty) Ltd
Act
functions 45-46
regarding 45-46
Section 7(1) – functions 45
Section 7(2) – functions 45
Section 7(6) – functions 45
Section 7(7) – Comsec exemption from licensing requirements 46
Section 17 – analysis of security needs of organs of state 46
Section 17(1) – state need approval from Comsec 46
Section 21 – Comsec to provide protection to infrastructure of state organs 46
Comtask Report, 1996 228
Constitution 102-103
UF Constitution of the Republic of South Africa Act, 108 of 199
legislation that regulate communications in SA 255
legislation under which Icasa operates 110
regulatory framework for telecommunications 47
Section 14 – right to privacy 284-285, 301
Section 14(d) 255
Section 16(1) 255, 304-305
Section 32 34-35
Section 33 - judicial authority 22, 34
possible policy objectives 252-253
SA policy landscape 251
possible outcomes and/or consequences of 257-259
network convergence 257
SA context 249
White Paper on Broadcasting policy 1998 25
White Paper on Telecommunications Policy 25
Convergence Bill 253-254
co-operatives 243
Correctional Services Act
interception of communications 319
Criminal Procedure Act 311
critical databases
in terms of ECT Act 38, 279-280
Crocioni
on price squeeze types 97-98
cross-subsidies 85
cross-subsidisation
abuse of dominance 126-127
cryptography
in terms of ECT Act 38
cyber crimes
in terms of ECT Act 38
cyber inspectors
in terms of ECT Act 38

D

Data Encryption Standard (DES)
definition of 70
data compression, definition of 69
data retention
provided by TCP to ROICA 330
data transmission
speed 54-55
data messages
as defined in ECT Act 38
legal recognition 269-274
attrition of data message to originator 273-274
automated transactions 272
expression of intent or other statement 273
evidential weight of data messages 271
formation and validity of agreements 273
‘in writing’ 270
notarisation, acknowledgement and certification 272
original 271
production of document or information 272
retention 272
signature 270-271
time and place of communications, dispatch and
receipt 273
decryption directions 323-324
decryption key holders (DKHs) 307, 312, 320, 324
compensation payable to, for interception 328-329
Defence Act, 44 of 1957
interception of communications 319
dense wavelength division multiplexing (DWDM) 57
Department of Communications (DoC)
Colloquium on the Pricing of Telecommunication of
SA 339
Director-General - administration of Human
Resources Fund 105
Director-General - chair USA 231
Director-General – cryptography providers to register
with 275-276
Discussion Paper on Electronic Commerce Policy
(1999) 26
draft Convergence Bill (Dec 2003) 26, 253-254
evaluation of licences applications 116-117
26
managed liberalisation of telecommunications
industry 133
powers in terms of Telecommunications Act 105-106
responsible for telecommunications policy 22
telecommunications regulator 101
Department of Safety and Security
Information Systems 44
Department of State Expenditure
Central Computer Services 44
Department of Trade and Industry
competition policy 26
Detecon International GmbH
qualified for phase 2 of SNO licensing process (2002) 131
deterministic, definition of 69
dial-up service, definition of 70
digital communications
versus analogue 52-53
Digital Subscriber Line (DSL)
definition of 70
Digital Subscriber Line Access Multiplexer (DSLAM)
definition of 70
digital technology 249
digital television compression 60
MPEG-2 60
directions (interception) of ROICA 319-325
communication-related directions 323-324
entry warrants 324
execution of 324-325
fair procedures 325
issuing of 320-322
written and oral applications 322-323
disabled persons
needs of, in terms of Telecommunications Act 135, 220
disadvantaged groups/individuals 294
ownership in terms of Telecommunications Act 135
discriminatory price squeeze 97
Discussion Paper on Electronic Commerce Policy 26
disputes, governments to settle at WTO 29
domain names 64-65
authority and administration 280-281
definition of 69-70
Domain Name Service (DNS) 65, 75
definition of 70
dominance
see abuse of dominance
dominant networks 86-87
Douvenga matter 281-283
Draft Convergence Bill 335

E
earnings sharing 93
Eastern Cape
ITA for USALs (2005) 337
ITA for USALs (2003) 160-161
USALs to small businesses in 241
e-commerce 263, 283
business to business (B2B) 69
business to consumer (B2C) 69
EU Directive on e-Commerce 266-268, 291, 293
EU Policy Directive on E-commerce 263
UNCITRAL Model Law on E-Commerce 263
OECD Guidelines on E-commerce 263, 293
e-Company Act 285
establishment of Comsec 285
Section 7 – functions of Comsec 285
economics of telecommunications 82-98
definition 83-89
economic features 83-89
compatibility and standards 87-88
complementarities in demand 88
network externalities 85-87
significant economies of scale 83-85
switching costs 88-89
economics of telecommunications regulation 89-98
some aspects of ex-ante regulation 90-94
some aspects of ex-post regulation 90, 94-98
economies of scale
telecommunications network construction 83-85
ECT Act 26, 37-39, 47, 253, 262-294
UF Electronic Communications and Transactions Act
(ECT Act), 25 of 2002
aims - Section 2(1) 268
authentication service providers (ASPs) 275-276
Chapter I - Part 1 28
Chapter II - Part 2 28
Chapter III – data message 38
Chapter X - .za Domain Name Authority 38
Chapter XI – information system services providers 39
comparison and analysis of international instruments 289-293
c consumer protection 276-278
critical databases 279-280
criticisms levelled against 283-284
cryptography providers 274-275
cyber crime 281-283
cyber inspectors 281
domain name authority and administration 280-281
e-government
in terms of ECT Act 38
services 274
electronic communications
comparative study of selected foreign jurisdictions 285-289
Australia 286
Canada 288-289
United Kingdom 287
United States 287-288
international regulation 264-268
EU Directives on e-Commerce 266-268, 289
Model Law 264-265, 286, 289  
Model Law on e-Signatures 265  
OECD 265-266  
Electronic Transactions Policy 269  
e-Sign Act and 292-293  
establishment (2002) 268  
EU Directive on e-Commerce and 291, 293  
legal recognition of data messages 269-274  
attrition of data message to originator 273-274  
automated transactions 272  
expression of intent or other statement 273  
evidential weight of data messages 271  
formation and validity of agreements 273  
‘in writing’ 270  
notarisation, acknowledgement and certification 272  
original 271  
production of document or information 272  
retention 272  
signature 270-271  
time and place of communications, dispatch and receipt 273  
legislation, other 284-285  
legislation that regulate communications in SA 255  
limitation of service provider liability 279  
Model Law and 290-291  
Model Law on e-Signatures and 291  
National e-Strategy 37  
privacy protection 285  
protection of personal information 278-279  
Section 1 – definition of electronic signature 291  
Section 5 – national e-Strategy 268-269  
Section 6 - Internet to disadvantaged 269  
Section 9 – Minister to evaluate adequacy for use by SMMEs 269  
Section 10 – electronic transactions policy 269  
Section 11(1) – defining data message 269  
Section 12 – ‘in writing’ 270, 292  
Section 13 – electronic signature 270-271, 286, 290  
Section 14 – information to be presented in original form 271  
Section 15 - evidential weight of data messages 271  
Section 16 – retention of information 272  
Section 17 – production of document or information 272  
Section 18 – notarisation, acknowledgement and certification 272  
Section 20 – automated transactions 272  
Section 22 – formation and validity of agreements 273, 291, 294  
Section 23 – time/place of communications, dispatch and receipt 273  
Section 24 - expression of intent or other statement 273  
Section 25 - attribution of data message to originator 273-274, 291-292  
Section 26 291  
Section 27 274  
Section 28 – SAPO appointed as preferred authentication service provider 275-276  
Section 30 – cryptography providers 275  
Section 31 – prohibit the disclosure of information 275  
Section 33 – definition of accreditation 276  
Section 34 – Director-General act as accreditation authority 276  
Section 37 – accreditation of authentication products and services 276, 290  
Section 38 – non-accreditation of authentication products and services 276  
Section 39 – suspend or revoke accreditation 276  
Section 42 - consumer protection 276-278  
Section 43 267, 276-278  
Section 44 - consumer entitled to cancel any transaction 277  
Section 45 - unsolicited communication (spam) 277-278  
Section 46 – consumer to cancel agreement 278  
Section 47 – consumer protection 278  
Section 48 278  
Section 47 - consumer may lodge with Consumer Affairs Committee 278  
Section 50-51 – protection of personal information 278-279  
Section 53-54 – critical databases 279-280  
Section 59, 65 and 69 - .za Domain Name Authority 280-281  
Section 70-79 – limitation of service provider liability 279  
Section 80-82 – cyber inspectors 281  
Section 85-86, 90-91 – cyber crime 281-283  
telemcommunications regulation 37-39  
US UETA and 292
E1/E3 74
  definition of 71
efficient component pricing rule (ECPR) 94
electronic communications
  comparative study of selected foreign jurisdictions 285-289
  Australia 286
  Canada 288-289
  United Kingdom 287
  United States 287-288
international regulation 264-268
  EU Directives on e-Commerce 266-268, 289
  Model Law 264-265, 286, 289
  Model Law on e-Signatures 265
OECD 265-266
  policy 26
electronic communications and transactions
  legal recognition in terms of ECT Act 38
Electronic Communications Act (April 2006)
  changes to 335-336
Electronic Communications Security (Pty) Ltd Act, 68 of 2003 285
UF ECS (Pty) Ltd Act
  see also Comsec Act
  functions 45-46
  regarding 45-46
electronic signature 270-271
ECT Act (Section 13) 270-271, 286, 290
  definition of, ECT Act (Section 1) 291
  definition of, e-Sign Act 292-293
e-Sign Act 287-288
electronic transactions policy
  Chapter II - Part 2 28
ECT Act 38
e-mail 65
  definition of 70
  employees 318
  monitoring 311
  personal 314
encapsulation, definition of 71
encryption, definition of 71
Enhanced Data rates for GSM Evolution (EDGE)
  definition of 70
entry warrants 324
Equipment Licensing: Chapter VI of the
  Telecommunications Act
equipment standards 168-169
  asymmetric digital subscriber line customer
  premises equipment 169
  calling line identification 169
  integrated services digital network customer
  premises equipment 169
  equipment-type approval 168
  labelling of telecommunications equipment 168
  mobile telephone blocking devices 168
  registration as a supplier 169
  equipment standards 168-169
  asymmetric digital subscriber line customer premises
  equipment 169
  calling line identification 169
  integrated services digital network customer premises
  equipment 169
  equipment suppliers
  registration as 169
  equipment-type approval 168
  labelling of telecommunications equipment 168
  mobile telephone blocking devices 168
Eskom Conversion Act, 13 of 2001 43
Eskom Holdings Limited 27-28
  authority to operate PTN 43
  equity interest of SNO set aside 42-43, 105, 150
Eskom Conversion Act 43
  leasing of facilities – Section 44 of Act 181
essential services 186-187
  charging structure 190-191
  provided by major operator 196-197
  Telkom declared 194
Ethernet
  definition of 71
  LAN 74, 79
  transmission speed (1976) 54-55
EU Directive on Data Protection 267
EU Directive on e-Commerce 266-268
  and ECT Act 291
  Article 11 291
EU Policy Directive on E-commerce 263
ex-ante regulation
  some aspects of 90-94
  access price regulation 93-94
  earnings sharing 93
  incentive regulation 92-93
  interconnection price regulation 93-94
Index

price cap regulation 92-93
retail price regulation 91
rate-of-return regulation 91-92
ex-post regulation
market definition 94-95
some aspects of 90, 94-98
abuse of dominance 97-98
restrictive horizontal practices 95-96
restrictive vertical practices 96-97
Extensible Markup Language (XML)
definition 81
exterior gateway protocol (EGP) 63
Extranet, definition of 71

F
facilities leasing
see leasing
Facilities Leasing Guidelines, 2000 and 2002 194-197
charging for making facilities available 195-196
facilities charging structure 195
Guideline 12 195
Major Operator 194
Major Operator facilities 196-197
obligations of facilities provider 196-197
Second National Operator (SNO) 196
Federal Communications Commission (FCC) 101
telecommunications regulation in USA 101
File Transfer Protocol (FTP) 63
definition of 71
Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations 29
firewall, definition of 71
fixed-mobile services 48
provided by Telkom 24
foreclose markets 97
forward-looking cost-based pricing 93-94
Fourth Protocol on Basic Telecommunications 29, 136, 219
SA open other telecommunications market segments 29, 136
Fourth Protocol to the Gats 108, 219
frame relay, definition of 71
freedom of expression 301
free-space optics (FSO) 59, 66
Free State

ITA for USALs (2005) 337
ITA for USALs (2003) 160-161
USALs to small businesses in 241
frequency-division multiplexing (FDM) 56
Frequency Spectrum Directorate
functions 105-106
in DoC 105-106
frequency use licensing
Chapter IV of Telecommunications Act 164-168
authority to operate 166
certificates of proficiency 166
frequency use licences 165
guidelines for licences 166
procedure for application of licences 166-167
radio frequency spectrum licences in 1800 MHz
frequency band 167-168
Third Generation radio frequency spectrum licences 48, 167-168
full-duplex, definition of 72
Further Education and Training Act, 98 of 1998 239
further education institutions
discounts on Internet connection and services fees, as of 18 Jan 2005 335

G
3G
see also Third Generation
definition of 81
issuing radio frequency spectrum licences 48, 167-168,
238-240, 245
spectrum 245
Gauteng
ITA for USALs (2005) 337
Gbps
see Gigabits (per second)
gender
see also women
and universal access and services 243-245
General Agreement on Tariffs and Trade (Gatt)
international obligations of SA in terms of 219-220
General Agreement on Trade in Services (Gats) 24
administration by WTO 108
Annex on Negotiations on Basic Telecommunication 29, 108
Annex on Telecommunications 28, 136
Article 4 136
Article III 136
international obligations of SA in terms of 28, 135-137, 219-220
principles that relate to licensing 136
Schedule of Commitments on telecommunications market access 179
General Packet Radio Service (GPRS)
definition of 72
generic telecommunications connectivity 67-68
Gigabits (per second)
UF Gbps
data transmission (1998) 54
definition of 72
dense wavelength division multiplexing (DWDM) 57
global mobile personal communications by satellite services (GMPCS) 142, 163-164
definition, Section 5 of Telecommunications Act 163-164
Icasa granted services licences (2002) 141
licence fees 170
policy direction (2001) 163-164
global mobile personal communications by satellite earth gateway service 163-164
Icasa granted services licences (2002) 141
policy direction (2001) 163-164
Global System for Mobile communications (GSM) 69
definition of 72
 cellular standard 57-58
Goldleaf Trading (Pty) Ltd
application for 51 percent interest in SNO 150

H

high-definition television (HDTV) 60
High Speed Circuit Switched Data (HSCSD) 67
definition of 72
Hong Kong
approach to interconnection 178
interception monitoring legislation 298
hosting, definition of 72
human resources development
in terms of Telecommunications Act 135
Human Resources Fund
functions of DoC regarding 105
hypertext markup language (HTML) 80
definition of 72
hypertext transfer protocol (HTTP) 63
see also Internet Protocols
definition of 72
Icasa 17, 30, 48, 130, 255, 335
UF Independent Communications Authority of South Africa
appointments by 123
broadcasting licences 112
Broadcasting Service 112
Chief Financial Officer 112
complaint launched by SAVA (1999)1 against Telkom's anti-competitive behaviour 176
conflict between Telkom and 114-115
Consultation Document 204-205
Councillors 118
appointment of 119-120
removal from office 120-121
remuneration of 122
tenure of office of 120
court ruling in Telkom case 177
court ruling in Transnet case 177
disputes, power to adjudicate 111-112
empowered by Telecommunications Act 21, 31
establishment of 221
fees and charges for telecommunication services 201-202
Filing of Tariffs 208-209
First Icasa Rate Regime 204-206
Engineering Service 112
funding from Minister/government 115, 129
Legal, Consumer Protection and Secretariat 112
legislative framework 110
licensing authority 111
managed liberalisation of telecommunications industry 133
Memorandum of Agreement with Competition Commission 124-125
organisational components 112
Rate Regime Dispute 207-208
relationship between Minister and 114-118
sources for revenue, suggested 122
telecommunications regulator 101, 110-123
challenges facing Icasa as a merged regulator 112-113
formation and objects 110-111
independence of the regulator 113-122, 129
powers and duties of Icasa 31, 33, 111-112, 129
relationship between Competition Commission and
124-125
staffing of the regulator 122-123
structure 112
Telecommunications Service and Legal 112
Icasa Act 17, 30, 110
UF Independent Communications Authority of South
Africa Act, 13 of 2000
amendments proposed by Minister (Jan 2006) 336-337
Chapter 1 – definitions, introduction, and objects 107
Chapter 2 – establishment of Icasa 107
Chapter 3 – special committees 107
Chapter 4 – transitional provisions 107
Chapter 5 – general provisions 107
legislation that regulate communications in SA 255
merging of IBA and Satra into Icasa 104, 107, 110,
254-255
objects of 107
promulgation 25
Section 2 110
Section 4(1)(c) 29
Section 6(1) – disqualification of councillors 120-121
Section 7(1) - tenure of office of councillors 120
Section 8 – removal of councillors from office 120-121
Section 10 – remuneration of chairperson/councillors
122
Section 12 – councillors’ obligations 118
Section 14(1)(a) – appointment of Council 33
Section 15 – funding of 121-122
Section 16 – annual report 121
telecommunications regulation 33-35, 101, 107, 110-
123
Icasa Amendment Bill (Jan 2006)
changes to 336-337
ICT sector/industries 254-257
Black Economic Empowerment Charter for the ICT
Sector (May 2005) 337
business activities categories 257
development of, in terms of Telecommunications Act
135
educational tool 239
gender gaps 244
information, communications and technologies sector
111
strategy 28
Ilizwi Telecommunications (Pty) Ltd 337
incentive regulation 92-93
Independent Broadcasting Authority (IBA) 254
establishment in 1993 102
merged with Satra into Icasa 25, 33, 107, 110
requirements for independence 103
Independent Broadcasting Authority Act, 153 of 1993
IBA established in 1993 in terms of 102
Icasa performs powers and duties in terms of 33
legislation under which Icasa operates 110
Section 41(1) 112
Independent Commission for World-Wide
Telecommunications Development
Maitland Report ("The Missing Link") 218-219
Independent Communications Authority of South
Africa
see Icasa
Independent Communications Authority of South
Africa Act, 13 of 2000
see Icasa Act
Independent Electoral Commission (IEC) 121
versus Langeberg Municipality 119
India
comparison of USFs administration 225
industrial, scientific and medical (ISM) frequencies
legislative requirement138-139
Infoplan 44
information, communication and technology
see ICT sector/industries
information system service providers
limitations of liability in terms of ECT Act 38
infrared-red (IR) communication 59-60
Infrared-red Data Association (IrDA) 59
Integrated Service Digital Network
see ISDN
Intelligence Services Act, 38 of 1994 45
Interactive Voice Response (IVR)
definition of 73
Interception Act 17, 27, 39-41, 253, 296-332
UF Regulation of Interception of Communications and
Provision of Communication-Related Information Act, 70 of 2002 (ROICA)
came into force on 30 September 2005 340
Chapter 5 40-41
Chapter 7 – personal information about customers 41
constitutional framework 300-307
limitation of a right 306-307
rights 301
right to freedom of expression 304-306
right to privacy 301-304
cost implications 327-330
data retention provided by TCP 330
definition of ‘communication’ 307-308
definition of TSPs 325-326
directions (interception) of ROICA 319-325
communication-related directions 323-324
entry warrants 324
execution of 324-325
fair procedures 325
issuing of 320-322
written and oral applications 322-323
exceptions 40
exemptions under 312-319
legislation that regulate communications in SA 256
legislative and policy development 299-300
parliamentary process 300
South African Law Reform Commission 299-300
objectives 307-308
obligations on the industry 325-331
cellular phones and SIM-cards 331
data retention 330
costs 329-330
Prohibition on Interception and Monitoring 311-319
promulgation of, 2002 298
regulation of telecommunications 39-41
Scope of the Application of ROICA 307-310
Section 1 308-310, 320
Section 2 39-40, 311
Section 3 – authorised persons allowed to intercept 312
Section 5 – consent in writing 313
Section 6 – interception and monitoring of electronic communications in business 314-318
Section 8 – interception of communication in case of emergency 318
Section 11 – monitoring of signals and radio frequency spectrum 319
Section 16(2) – written and oral applications 322-323
Section 16(5) - interception direction relating to serious offences 320-321
Section 16(10) – application to cancel or amend interception direction 325
Section 30 – storing of communication-related information by TSPs 326-327
Section 30(2) - issue directive to TSPs when receiving licence 326-327
Section 32 – interception centres 318
Section 41 – cellular phone/SIM-card 41
Section 44 – electronic equipment 41
Section 45 – listed equipment 41
Section 46 – certification of listed equipment 41
Section 46(1) -- ISP application for exemption to comply with interception capability 330
Section 51 312
Section 58 - written and oral applications 322-323
Section 150 – law-enforcement officer may execute interception direction 324-325
interception and monitoring
general prohibition 311-312
prohibition 39, 311-319
Interception and Monitoring Bill, 2001
parliamentary process 300
interception and monitoring policy 27
Interception and Monitoring Prohibition Act, 127 of 1992 (IM Act) 27, 39, 297
interception 308-310
monitoring 310
SALRC report (Oct 1999) 27
Section 2(1)(a) 308
Section 2(1)(b) 311
Section 86(1) 281-282
Interception legislation 340
interception of communication
authorised by other legislation 319
by a party to the communication 312-313
direct communications 307, 310, 314, 332
for purposes of determining locations in case of emergency 318
in a business 313-318
indirect communications 307-308, 310, 313-318, 332
monitoring signals and radio frequency spectrum to prevent serious bodily harm with consent of a party to the communication see Interception Act Interception of Communications and Provision of Communication Related Information Act see Interception Act interconnection fees price regulation interconnection agreements interconnection and facilities leasing definition in terms of Telecommunications Act importance of guidelines, replacing (as in postscript) rates regulation of guidelines, replacing (as in postscript) Interconnection Guidelines, 2000 and 2002 caller line identity (CLI) confidentiality contents of agreements efficient provisioning establishment and location of Points of Interconnection interconnection agreements not to preclude rights interconnection charging structure inter-operator working group maintenance of any to any connectivity major operators and essential services non-discrimination principles Point of Interconnection (POI) quality of service replacing (as in postscript) requests for interconnection requests for interconnection and good faith negotiations requests for new services and system change transparency of agreements interconnection price regulation backward-looking cost-based pricing efficient component pricing rule (ECPR) forward-looking cost-based pricing long-run incremental cost (LRIC) interior gateway protocol (IGP) international call-back services International Communication Conventions International Convention for the Safety of Life at Sea, 1974-78 International Convention on Maritime Search and Rescue, 1979 international instruments/organisations comparison and analysis of the international instruments e-Sign Act and ECT Act EU Directive on e-Commerce and ECT Act Model Law and ECT Act Model Law on e-Signatures and ECT Act US UETA and ECT Act ITU and the African Green Paper telecommunications regulation Trasa WTO international law SA’s obligations in terms of section 4(1)(c) of Icasa Act regulation of telecommunications through International Telecommunication Union (ITU) 17, 77, 88, 189 and the African Green Paper definition of definition of universal service international telecommunication gateway services Sentsch international telecommunication services licence category licensing process initiation International Telegraph and Telephone Consultative Committee (CCITT) Internet broadband technologies definition of discounts for school and further education institutions, as at 18 Jan 2005
Internet Protocols (IP and TCP/IP) 62-63, 76
IP Addressing 63-65, 70
protocols 63
Vans 157
Internet control message protocol (ICMP) 63
Internet Corporation for Assigned Names and Numbers (ICANN) 64
Internet Protocol Address
see IP Address
Internet Protocols (IP and TCP/IP) 62-63
see also TCP/IP
border gateway protocol (BGP) 63
exterior gateway protocol (EGP) 63
file transfer protocol (FTP) 63
hypertext transfer protocol (HTTP) 63
Internet control message protocol (ICMP) 63
interior gateway protocol (IGP) 63
IP Version 4 (IP v4) 63
IP Version 6 (IP v6) 63
point to point protocol (PPP) 63
serial line Internet protocol (SLIP) 63
simple mail transfer protocol (SMTP) 63
simple network management protocol (SNMP) 63
Telnet 63
user datagram protocol (UDP) 63
Internet Service Provider
see ISP
Internet Solutions (Pty) Ltd 159
Internet telephony services 24
Intranets, definition of 73
invitation to apply (ITA) 25
for USALs in municipal districts 160-161
Internet Protocol (IP)
definition of 73
IP Addresses 70
UF Internet Protocol Address
definition of 73
domain names 64-65
management of, ARIN 64
structure 64
IP Addressing 63-65
UF Internet Protocol Addressing
domain names 64-65
domain name servers (DNS) 65
e-mail 65
IP-Net 159
IP Version 4 (IP v4) 63
IP Version 6 (IP v6) 63
ISDN 54, 62, 177
UF Integrated Service Digital Network
Customer Premises Equipment
equipment standards 169
definition of 73
ISDN2 62
ISDN2a 62
ISDN30 62
ISDN (BRI) 62
ISDN (PRI) 62
pricing 62
rollout by USA 229
Telkom's introduction to SA 62
transmission speed 54
ISDN2 62
ISDN2a 62
ISDN30 62
ISDN (BRI) 62
ISDN (PRI) 62
ISM frequencies
see industrial, scientific and medical (ISM) frequencies
ISP 263
UF Internet Service Provider
definition of 73
discounts for schools, as of 18 Jan 2005 335
discounts for schools in terms of Telecommunications Amendment Act 239
fees and charges 202
limited liability in terms of ECT Act 291
J
Japan
ex-ante approach to interconnection 178
use of SDH 77
use of SONET 78-79
use of PDH 76
Java, definition of 73
judicial authority
Section 33 of Constitution 22
Judicial Services Commission 106
K

Karabo Telecomms (Pty) Ltd 337
kbps
see kilobit (per second)
kilobit (per second) 67
UF kbps
data transmission 54
definition 74
Kingdom Communications (Pty) Ltd 337
KwaZulu-Natal
ITA for USALs (2005) 337
ITA for USALs (2003) 160-161
USALs to small businesses in 241

L

labelling of telecommunications equipment 168
equipment-type approval 168
LAN
UF Local Area Network
definition 74
Ethernet, LAN-based 71, 74, 79
in terms of Radio Act 139
legislative requirement 138-139
use of statistical multiplexing 56
Langeberg Municipality
financial independence 121
versus Independent Electoral Commission 119
latency, definition 74
law-enforcement officers
interception of communications 318
leasing
see interconnection and facilities leasing
leased line, definition 74
Legacy Wireline (Copper) Technologies 61-62, 67
ISDN 62
POTS 61, 70
Legal Succession to the SA Transport Services Act, 9 of 1989
regarding Transnet 42-43
authority to construct and operate telecommunications networks 42
authority to operate a PTN 42
telecommunications regulation 42-43
legislation
Broadcasting Act 33, 105-106, 110-111, 129, 257
Competition Act 17, 35-37, 95-98, 106-107, 124, 256
Constitution 102-103, 255, 284-285, 300-307
Convergence Bill 26, 253-254, 335
Electronic Communications and Transactions Act 26, 28, 37-39, 47, 253, 262-294
Electronic Communications Bill 335-336
Electronic Communications Security (Pty) Ltd Act 45-46
Ekos Conversion Act 43, 160, 181
Independent Broadcasting Authority Act 33, 102, 110, 112
Independent Communications Authority of South Africa Act 104, 107, 110, 120-122, 254-255
Interception and Monitoring Prohibition Act 27, 39, 281-282, 297, 308-310
Legal Succession to the South African Transport Services Act 42-43
Post Office Act, 1958 33, 42-43, 142, 151-152, 164
legislation that regulate communications in SA 255-256
ECT Act 26, 37-39, 253, 255, 262-294
Interception Act 17, 27, 39-41, 253, 256, 296-332
Competition Act 35-37, 106-107, 125, 256
Constitution 20-22, 47, 102-103, 110, 255
Telecommunications Act 17, 21, 24, 26, 30-31, 104-106, 129, 137-170, 173-174, 182-183, 220-221, 226, 238-239, 253, 256
legislative framework
affected by convergence 254-257
bird’s-eye view 47
telecommunications regulation 20, 47, 102-107
telecommunication regulators
legislative framework 102-107
Competition Act, 89 of 1998 106-107
Constitution 102-103
Independent Communications Authority of South Africa Act, 13 of 2000 107
powers of the DoC in terms of
Telecommunications Act 103-106
powers of the Minister in terms of
Telecommunications Act 104-105
regulatory bodies established in terms of the
Telecommunications Act 103-104
liberalisations (Feb 2005)
changes as in postscript 334–335
licensing 132–171
amendment of licences 145–146
Cell C – controversy 117–118
class licences 336
classes 142–143
competitive licences 111
consideration of applications 142–143
definition of a licence 133–134
equipment – Chapter VI of the Telecommunications Act 168–169
equipment standards 168–169
equipment type approval 168
registration as a supplier 169
frequency licensing - Chapter IV of Telecommunications Act 164–168
authority to operate 166
certificates of proficiency 166
frequency use licences 165
guidelines for licences 166
procedure for application of licences 166–167
radio frequency spectrum licences in 1800 MHz frequency band 167–168
Third Generation radio frequency spectrum licences 167–168
in SA 135–137
international obligations 135–137
Legislative Framework 137
licence fees 169–170
Section 88 169–170
licence on invitation (Section 34(2) of Telecommunications Act) 111–112, 115–117
licence types 111
licensing process of the SNO 149–151
19 percent interest 150
51 percent interest 150–151
phases of invitation to express interest 150–151
policy directions 149–150
objectives of 134–135
telecommunications licensing in SA 111
Limpopo
ITA for USALs (2003) 160–161
ITA for USALs (2005) 337
USALs to small businesses in 241
local access telecommunication services 32
exempted from complying with COA/CAM 212
licence category 141
Local Area Network
see LAN
local loops 23
long-distance networks 83
long-run incremental cost (LRIC) 93–94, 190–191
Maitland Report (the ‘Missing Link’) 218–219
major operators 186–187
essential facilities provided by 196–197
fully allocated costs (FAC) 190–191
Telekom declared 194
Malaysia
approach to interconnection 178
comparison of USFs administration 225
convergence model 259
independence of regulator 114
same legislation for broadcasting and telecommunications 110–111, 129
telecommunications regulation in 101
Managed Data Network Service (MDNS) 158
Maritime and Aeronautical Radio Services 46
market definition
ex-post regulation 94–95
market structure
telecommunications policy directions provided for in Telecommunications Amendment Act 24–25
Mbps
see Megabits (per second)
MCTS Joint Economic Development (JED) Agreements 234
Megabits (per second) 67
UF Mbps
broadband 65–66
definition 74
data transmission (1976) 54
data transmission (1997) 54
metropolitan area network (MAN) 23
definition 74
microwave 58–59, 66
Minister of Communications 42, 46, 335
see also Ministry of Communications
apportionment of monies in USF 227–230
approved and published COA/CAM 213–214
<table>
<thead>
<tr>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>conflict between Icasa and 114-115</td>
</tr>
<tr>
<td>control of licensing process and methods 142-143</td>
</tr>
<tr>
<td>development of ICT strategy 28</td>
</tr>
<tr>
<td>directive contemplated by ROICA 329</td>
</tr>
<tr>
<td>direct regulator to conduct market assessment (2004) 24-25</td>
</tr>
<tr>
<td>domain Name Authority and administration 280-281</td>
</tr>
<tr>
<td>empowered by Telecommunications Act 256</td>
</tr>
<tr>
<td>empowerment, Section 56 of Interception Act 41</td>
</tr>
<tr>
<td>empowerment, Section 5(4) of Telecommunications Act 21</td>
</tr>
<tr>
<td>empowerment, Section 130 of Telecommunications Act – Telkom 42</td>
</tr>
<tr>
<td>equity interest of SNO set aside for Eskom and Transnet 43, 105</td>
</tr>
<tr>
<td>evaluate adequacy of e-strategy for use by SMMEs 269</td>
</tr>
<tr>
<td>First Icasa Rate Regime 204-206</td>
</tr>
<tr>
<td>fixed links 174</td>
</tr>
<tr>
<td>functions</td>
</tr>
<tr>
<td>Section 5(4)(a) of Telecommunications Act 113, 204</td>
</tr>
<tr>
<td>Section 34(2) of Telecommunications Act 112, 115</td>
</tr>
<tr>
<td>Section 35A of Telecommunications Act – licensing procedures 112, 115-116, 129</td>
</tr>
<tr>
<td>Section 41(1) of Telecommunications Act 46</td>
</tr>
<tr>
<td>Section 41(11) of Telecommunications Act 46</td>
</tr>
<tr>
<td>functions, separation between Minister and regulator 254</td>
</tr>
<tr>
<td>interconnection and facilities leasing guidelines 185-186</td>
</tr>
<tr>
<td>liberalisations (Feb 2005)</td>
</tr>
<tr>
<td>changes as in postscript 334-335</td>
</tr>
<tr>
<td>licences, awarding 133</td>
</tr>
<tr>
<td>licensing 111-113</td>
</tr>
<tr>
<td>Notice 1924 of 2004 334-335</td>
</tr>
<tr>
<td>oversee USA functions 231</td>
</tr>
<tr>
<td>policy directions, Section 5(4) of Telecommunications Act 24, 204</td>
</tr>
<tr>
<td>powers in terms of Telecommunications Act 104-105, 112-114, 116, 129</td>
</tr>
<tr>
<td>Rate Regime Dispute 207-208</td>
</tr>
<tr>
<td>relationship between Icasa and 114-118</td>
</tr>
<tr>
<td>remuneration of Icasa chairperson/councillors 122</td>
</tr>
<tr>
<td>remuneration of TSPs to facilitate interception/monitor 326</td>
</tr>
<tr>
<td>responsible for telecommunications policy 22</td>
</tr>
<tr>
<td>telecommunications regulator 101</td>
</tr>
<tr>
<td>USA to define universal service and access 221-222</td>
</tr>
<tr>
<td>USAL applications (2004) 241-242</td>
</tr>
<tr>
<td>Ministry of Communications</td>
</tr>
<tr>
<td>see also Ministry of Communications</td>
</tr>
<tr>
<td>critical databases 279-280</td>
</tr>
<tr>
<td>issue directive to TSPs when receiving licence 326-327</td>
</tr>
<tr>
<td>managed liberalisation of telecommunications industry 133</td>
</tr>
<tr>
<td>recommendations made to lower telecommunications prices 339</td>
</tr>
<tr>
<td>safekeeping place for policy 254</td>
</tr>
<tr>
<td>Minister of Education 46</td>
</tr>
<tr>
<td>Minister of Finance</td>
</tr>
<tr>
<td>remuneration of Icasa chairperson/councillors 122</td>
</tr>
<tr>
<td>telecommunications regulation 22</td>
</tr>
<tr>
<td>Minister of Intelligence Services</td>
</tr>
<tr>
<td>identify critical infrastructure through Comsec 46</td>
</tr>
<tr>
<td>Minister of Justice and Constitutional Development</td>
</tr>
<tr>
<td>declare instruments used as interception devices as listed equipment 309</td>
</tr>
<tr>
<td>interception centres 318</td>
</tr>
<tr>
<td>issue directive to TSPs when receiving licence 326-327 Project 124 285</td>
</tr>
<tr>
<td>SACL Report, 1999 298</td>
</tr>
<tr>
<td>telecommunications regulation 22, 27, 41</td>
</tr>
<tr>
<td>Minister of Posts and Telecommunications</td>
</tr>
<tr>
<td>MCTS licences granted in 1993 151-152</td>
</tr>
<tr>
<td>Minister of Public Enterprises 42-43</td>
</tr>
<tr>
<td>telecommunications regulation 22, 27, 105</td>
</tr>
<tr>
<td>Minister of Public Services and Administration 44</td>
</tr>
<tr>
<td>powers given to Sita by 44-45</td>
</tr>
<tr>
<td>Minister of State Expenditure</td>
</tr>
<tr>
<td>remuneration of TSPs to facilitate interception/monitor 326</td>
</tr>
<tr>
<td>Minister of Trade and Industry</td>
</tr>
<tr>
<td>appointment of Competition Commissioner 106</td>
</tr>
<tr>
<td>determine policy regarding space affairs 41</td>
</tr>
<tr>
<td>empowered to make regulations in terms of Competition Act 37</td>
</tr>
<tr>
<td>evaluate adequacy of e-strategy for use by SMMEs 269</td>
</tr>
<tr>
<td>telecommunications regulation 22</td>
</tr>
<tr>
<td>Minister of Transport 46</td>
</tr>
<tr>
<td>mobile cellular telecommunication services (MCTS) 29, 32, 151-156</td>
</tr>
<tr>
<td>basket services 210-211</td>
</tr>
<tr>
<td>commercial rollout 236</td>
</tr>
</tbody>
</table>
community service obligations 234-236
contribution to USF 226
declared Public Operators 191
facilities to build networks (Feb 2005) 334-335
High Court interdict 139-140
initial two MCTS providers 151-152
issued to Wireless Business Solutions 33
joint economic development (JED) 234, 238
joint economic development (JED) agreements 234, 237-238
licence category 140
licensed to use 1800 MHz by 21 Feb 2002 25, 167-168, 251
licence fees 170
licence renewal 146
licences 104, 145
licences to use frequency spectrum in 900 MHz bands 165
licensing process for third provider 153-156
licensing process initiation 142
MCTS regulatory accounts 213-214
provision of universal access and service 234-238, 244
regulation of retail pricing 209-211
Filing of Tariffs 208-209, 211
Rate Regime 209-210
Rate Regime Reviews 210-211
regulatory accounts 211-214
Vodacom 152-153
mobile data services 164
mobile data telecommunications services 164
mobile telephone blocking devices
equipment-type approval 168
Mobile Telephone Networks (Pty) Ltd (MTN) 139-140
amendments to MCTS licence granted to (2002) 153
fixed links 174
on financial assistance to implement ROICA 328
pre-paid cellular users 331
reduced tariffs for CSTs 210
mobile telephony
example of collusion 96
Model Law 264-265, 284, 287-288, 292
and ECT Act 290-291
Article 7 290
Article 13 290
Model Law on e-Signatures 265
and ECT Act 291
Model Regulatory Framework for Telecommunications 109
modern (MODulation/DEModulation) definition of 74
Most Favoured Nation Treatment (MFN) principle of Gats 136
Moving Picture Experts Group see MPEG-2
MPEG-2 60
UF Moving Picture Experts Group
MPLS
UF Multi-Protocol Label Switching definition 74-75
transmission speed 55
Mpumalanga
ITA for USALs (2005) 337-338
MTN
amended MCTS licence granted to 153
COA/CAM 214
community service obligations 234-235, 238
MCTS licence granted in 1993 to 151-152
price cap mechanism 209
rate regime for MCTS licensees 209
regulatory accounts 213-214
multi-media, definition of 75
Multimedia Messaging Service (MMS) definition 75
multimedia services 32, 104
addition of Section 32C to the Telecommunications Act 26
definition according to Telecommunications Act 161
difference between Vans licence and 161
licence category 141
licensing process initiation 142
Section 32C 161-162
Sentech 24, 43, 161-162, 240, 251
multiplexing mechanisms 55-57
frequency division multiplexing 56
statistical multiplexing 56
time-division multiplexing 55
wavelength division multiplexing 56-57
Multi-Protocol Label Switching see MPLS
multi-purpose community centres (MPCCs) application of USF money 228
name resolution, definition of 75
National Assembly 103
National Director of Public Prosecutions 332
national e-strategy
Chapter I, Part I 28
ECT Act 38
national executive authority 22
National Intelligence Agency 45
national legislation
telecommunications regulation 30-47
  Competition Act 35-37
  Comsec Act 45-46
  ECT Act 37-39
  Eskom Conversation Act 43
  Icasa Act 33-35
Legal Succession to the SA Transport Services Act
42-43
national legislative authority 21
national policy 23-28
Post Office Act 42
Regulation of Interception Act 39-41
Sentech Act 43
Space Affairs Act 41-42
State Information Technology Agency Act 44-45
Telecommunications Act 30-33
national long-distance telecommunication services 23, 32, 104
licence category 141
licensing process initiation 142
national policy 47
telecommunications regulation 23-28
  competition policy 26
  convergence policy 25-26
  electronic communications policy 26
  future policy proceedings 28
  interception and monitoring policy 27
  policy regarding state-owned enterprises 27-28
  telecommunications policy 23-25
National Regulatory Authority (NRA) 113
National Revenue Fund
funding of Icasa 121
licence fees 170
Nedtel Cellular (Pty) Ltd 139-140

needy people
  defined by USA 222
Nepal
  contribution to USF 227
Network Address Translation (NAT)
  definition 75
network externalities 85-87
Nextcom (Pty) Ltd (Nextcom)
  legal action – third cellular licence 118, 154-156
Nexus Connection (Pty) Ltd
  application for 19 percent interest in SNO 150
  SNO awarded on 9 December 2005 338
New Zealand
  approach to interconnection 178
  Baumol-Willig Rule 128
  Commerce Act 127-128
  competition regulation 127-128
  developing privacy legislation 285
  telecommunications regulation in 102
  non-discriminatory price squeeze 97
North West Province
  ITA for USALs (2005) 337-338
  ITA for USALs (2003) 160-161
  USALs to small businesses in 241
  numbering 335
  numbering plan – Section 89 of Telecommunications Act 31
New Zealand
  number portability regulations 89, 179
  promulgated 30 September 2005 340

O

OC1/OC3
  definition 75
  Optical Carrier 1 75
  Optical Carrier 3 75
OECD Guidelines on E-commerce 263, 293
Office for Telecommunications (Oftel)
  disputes, guidelines 125
  telecommunications regulation in UK 102
Optical Carrier 1 75
Optical Carrier 3 75
optic fibre technologies
  optical fibre cables between SA and Europe 57
  use of wavelength division multiplexing 56-57
Optis Telecommunications (Pty) Ltd
application for 51 percent interest in SNO 150
Organisation for Economic Co-operation and
Development (OECD) 265-266
out-of-band signalling, definition 75

P

PABX 139-140
packet switching, definition 75-76
packet technologies
versus circuit 53-54
Parliament 21
managed liberalisation of telecommunications
industry 133
Minister of Communications 21
national legislative authority 21
National Assembly 21
National Council of Provinces 21
Parliamentary Justice and Constitutional Development
Portfolio Committee 331
peer-to-peer, definition 76
personal data protection
in terms of ECT Act 38
Personal Digital Assistant (PDA)
definition 76
Peru
comparison of application of USF monies
internationally 229-230
comparison of USFs administration 225
ctribution to USF 227
USAs application 243
Plain Old Telephony System (POTS) 61, 71
Plesiochronous Digital Hierarchy (PDH)
definition 76
Point of Interconnection (POI) 187
in Major Operator’s network system 193
point of presence (POP)
definition 76
point to point protocol (PPP) 63
Poland
approach to interconnection 178
use of co-operatives to expand access to under-
serviced communities 243
policy
and legislation to date 253-254
changes, Feb 2005 (as in postscript) 334

Convergence Bill 253-254
definition 250-251
ECT Act 253
Interception Act 253
SA policy landscape 251
Telecommunications Act 253
Portfolio Committee on Justice and Constitutional
Development 332
postal service providers (PSPs) 307, 312
compensation payable to, for interception 328-329
Post Office Act, 44 of 1958 33, 43
MCTs licences granted in 1993 151-152
regarding Telkom 42
Section 78(2) 142, 164
telecommunications regulation 42
predatory price squeeze 97-98
prepaid technology
role and relevance 237
President
appointment of Chairperson of Competition Tribunal
106
appointment of Icasa councillors 119-120
appointment of members of Competition Appeal
Court 106
eexecutive authority – Section 85(2)(b) of Constitution
22
powers in terms of Section 8(3) of Icasa Act 121
Presidential International Advisory Council on
Information Society and Development
telecommunications regulation 22
Presidential National Commission on Information
Society and Development
telecommunications regulation 22
price cap mechanism 203-204
MTN 209
Vodacom 209
price cap regulation 92-93
price regulation 83
interconnection 86-87
price squeeze types, according to Crocioni and
Veljanovski 97-98
discriminatory price squeeze 97
non-discriminatory price squeeze 97
predatory price squeeze 97-98
pricing 335
interconnection 87
pending policy proceedings regarding (2005) 339
pricing regulation
definition 201
determining fees and charges for telecommunication services 201-202
regulation of MCTS retail pricing 209-211
Filing of Tariffs 208-209, 211
Rate Regime 209-210
Rate Regime Reviews 210-211
regulation of PSTS retail pricing 203-209
Filing of Tariffs 208-209
First Icasa Rate Regime 204-206
Ministerial Rate Regime 203-204, 207-208
Rate Regime Dispute 207-208
regulatory accounts 211-214
Telecommunications Act provisions regarding pricing 201-202
privacy
and data protection 284-285
protection 285
right to 284-285
Privacy and Data Protection Act
promulgation pending 285
private telecommunication network (PTN) services 23, 32, 158-160
contribution to USF 226
definition according to Telecommunications Act 159
difference between Vans and 159-160
licence category 141
licence fees 170
licences granted by Icasa 111, 160
restriction to resell excess capacity lifted (Feb 2005) 335
privatisation 123
Promotion of Access to Information Act, 2 of 2000 (PAIA) 272, 275
Icasa perform powers and duties in terms of 33-35
privacy protection 285
Promotion of Administrative Justice Act, 3 of 2000 (PAJA)
Icasa performs powers and duties in terms of 33-34, 111
Section 6(1) 34
protocol, definition of 76
proxy server, definition of 76
Public Finance Management Act, 1 of 1999 (PFMA)
Chapter 5 121-122
Icasa performs powers and duties in terms of 33-34, 121-122
Public Land Mobile Network (PLMN) 152
public operators 191
public pay-telephone services 23, 32, 85
exempted from complying with COA/CAM 212
licence application (Feb 2005) 335
licence category 141
public switched telecommunication network (PSTN) 163
public switched telecommunication services (PSTS) 24-25, 31, 244
additional licences 104
amendment of licences 145
contribution to USF 226
facilities leasing 174, 176
licences 144-145
licence category 140
licence fees 170
licensees 30, 31, 115
licensing process initiation 142
regulation of retail pricing 203-209
Filing of Tariffs 208-209
First Icasa Rate Regime 204-206
Ministerial Rate Regime 203-204, 207-208
Rate Regime Dispute 207-208
regulatory accounts 212-213
public telecommunications operator (PTO) 113, 121-123
Q
Quality of Service (QoS)
definition of 77
R
Radio Act, 3 of 1952
MCTS licences granted in 1993 151-152
regarding LANs 139
radio frequency access
fees 105
to 1800 MHz frequency band 105, 167-168
cable television 61
case between Telkom and 175
Schedule of Specific Commitments, Supplement 2 29
Reference Paper 29, 219-220
Second National Operator (SNO) 48, 104
awarded on 9 December 2005 338
changes as in postscript 338
coopperation with Telkom 148-149
declared Public Operator 191, 196
exempted from complying with COA/CAM 212
facilities leasing agreements, 2000 196
formed, not licensed yet 251
licences 144
licensed to use 1800 MHz by 21 Feb 2002 25
licensing concern 47
licensing controversy 115
licensing process of the 149-151
19 percent interest 150
51 percent interest 150-151
phases of invitation to express interest 150-151
policy directions 149-150
policy with regard to market structure 24
preferred applicants 116-117
provided for in Telecommunications Amendment Act 238
provided for in White Paper on Telecommunications 148-149
working committee appointed by Minister 116
Sentech Act, 63 of 1996
regarding Sentech 43, 161-162
Sentech (Pty) Ltd 28, 43, 161-163
application to amend licences 162-163
application to declare invalid supplementary
interconnection guidelines 187
carrier of carriers 162
CSOs 240
declared Public Operator 191, 196
exempted from complying with COA/CAM 212
licences 144
licensed to provide services (2002) 24, 141
multimedia service licence 48, 161-162
multimedia services 161-162
ownership transfer 43
provided for in Telecommunications Amendment Act 238
Sentech Act, regarding 43
SepCo
SNO awarded on 9 December 2005 338
serial line Internet protocol (SLIP) 63
Service Level Agreement (SLA) definition 77-78
service providers
interconnection charges 190-191
Services
Customer premises equipment
Fixed-mobile services
Global mobile personal communications by satellite
service
Global mobile personal communications by satellite
earth gateway service
International call-back services
International telecommunication gateway services
(carrier of carriers)
International telecommunication services
Internet telephony services
Local access telecommunication services
Mobile cellular telecommunication services
Multimedia services
National long-distance telecommunication services
National Mobile Data Telecommunications
Paging
Private telecommunication networks
Public pay-telephone services
Public switched telecommunication services
Under-serviced areas
Value added network services
Short Message Service (SMS)
definition of 78
SIM cards 331
UF subscriber identity module cards
ROICA provisions 331
simple mail transfer protocol (SMTP) 63
definition of 78
simple network management protocol (SNMP) 63
definition of 78
simplex, definition of 78
Sita
UF State Information Technology Agency (Pty) Ltd
powers and functions in terms of Section 7 44
Sita Act, regarding 44-45
Sita Act, 88 of 1998
UF State Information Technology Agency (Pty) Ltd Act
Index

South African Transport Services 42
South African Vans Association (SAVA) 175-177
Southern African Development Community (SADC)
formation of Trasa 109
Southern African Transport and Communications
Commission (SATCC) 109
guidelines published by 109-110
South Korea
convergence model 259
Space Affairs Act, 84 of 1993
telecommunications regulation 41-42
spam
definition of 78
Section 45 of ECT Act 277-278
standards
service provision in terms of Telecommunications Act
135
State Information Technology Agency Act
see Sita Act
State Information Technology Agency (Pty) Ltd
see Sita
State Owned Enterprises Policy Framework 27
state-owned entities/enterprises
policy regarding 27-28
White Paper on Telecommunications Policy 27
station licences
licence fees 170
statistical time division multiplexing (STDM) 56
STM-1/STM-4/STM-16
see also Synchronous Transport Module 1
definition 78
streaming, definition of 78
subscriber identity module cards
see SIM cards
Sweden
approach to interconnection 178
switching costs 88-89
Synchronous Digital Hierarchy (SDH)
definition of 77
Synchronous Optical Network (SONET)
definition of 78-79
synchronous transmission
definition of 79
Synchronous Transport Module 1
see also STM-1/STM-4/STM-16
definition 78
Systems Network Architecture (SNA)
  definition of 78

T

T1/T3, definition of 78
TCP/IP 62-63, 71
UF Transmission Control Protocol/Internet Protocol
  definition of 79
TDM
  see time division multiplexing
technical terms 67-81
TeleAccess Investments (SA) (Pty) Ltd
  qualified for phase 2 of SNO licensing process (2002)
  151
telecentres 244
  application of USF money 228-229
telecommunication
  definition according to the Telecommunications Act
  137
telecommunications
  see also telecommunications regulation
  abuse of dominance 126-127
circuit versus packet 53-54
definitions 17-18, 51-52
digital versus analogue 52-53
economics of 82-98
defined 83-89
economic features 83-89
  compatibility and standards 87-88
  complementarities in demand 88
  network externalities 85-87
  significant economies of scale 83-85
  switching costs 88-89
forms of 51-52
history of 52-54
Internet 62-66
legislation that regulate communications in SA 255-256
ECT Act 255
Icasa Act 253
Interception Act 256
Competition Act 256
Constitution 255
Telecommunications Act (see Telecommunications Act)
  licensing in SA 135-137
    international obligations 135-137
  Legislative Framework 137
  pricing regulation 200-214
  self-provisioning 335
  specific legislation, bird’s-eye view 47
  technologies 55-62
  transmission speed 54-55
  where it started 52
Telecommunications Act, 103 of 1996 17, 253
  amended, addition of Section 32C regarding multimedia services 26
  amended to licence Sentech 24
  defining telecommunications 18
Chapter IV – Frequency Licensing 164-168
Chapter V 137-164
from the White Paper on Telecommunications to 220-221
  legislation that regulate communications in SA 256
  legislation under which Icasa operates 110
  liberalisations (Feb 2005) 334-335
  licensing, objectives listed in 134-135
  objectives of 220-221
  powers of DoC 103-106
  powers of Minister of Telecommunications 104-105
  provisions regarding pricing 201-202
  regulatory bodies established in terms of 103-104
Section 2 30, 104
Section 2 (l) and (q) – policy direction 143-144, 238-239
Section 5 – establishment of Satra 103-104
Section 5 – GMPCS system 163-164
Section 5(4) 24, 143, 204
Section 27 – enquiry by Icasa for launch of new services 141, 204
Section 28(1) – radio frequency spectrum 164-165
Section 29 – frequency band plan 31
Section 30A – MCTS, frequency licences 167-168, 239
Section 30B – MCTS, 3G licences 167-168, 239
Section 30 30, 134, 165
Section 30 (1)(b) 166
Section 30 (1)(c) 166
Section 30 (2)(b) – frequency licensing application 31, 166-167
Section 30 (3)(e) – frequency licensing process 166-167
Section 30 (7) – frequency licensing, amendment
renewal, transfer 166-167
Section 32 30, 134, 137-138, 139
Section 32A – unbundling 183, 196-197
Section 32(1) – call-back operations 138, 140
Section 32B(2) 105, 149, 191, 196
Section 32C – multimedia service 161-162, 191, 196
Section 32C(1)(a) – licence to Sentech 141, 162, 165
Section 32C(6) – carrier of carriers 162
Section 33 – categories of licences 140-142, 202
Section 33(1)(a) – licence categories 31-33
Section 33(1)(b) – other licence categories 33, 141
Section 33(2) – services without licence 33, 139, 141
Section 34 – renewal of licences 146-147
Section 34(1) – service licence application 31, 115, 142
Section 34(2) 104-105, 112, 113-117, 140, 146, 164
Section 34(2)(a) – applications for SNO licences 142-144, 146, 149-151, 154
Section 34(2)(b) 162
Section 34(2)(c) 162
Section 34(3) – applications for licences 142-143, 146
Section 34(4) – applications for licences 142-144, 146
Section 35 – renewal of licences 146-147
Section 35A – Minister empowered to decide on licensing process 105, 115-117, 143, 149-150
Section 35(2) – frequency licensing 166-167
Section 35(3) – frequency licensing, due regard to be given to disadvantaged 144, 166-167
Section 35(4) – frequency licensing, due regard to be given to women 144, 166-167
Section 36 – Telkom 42, 145, 147-149, 191, 196
Section 36A – definition of PSTN 147
Section 36B – definition of PSTN 147
Section 36(2) – SNOs, infrastructure roll-out 149
Section 37 191, 196
Section 37(1) – renewal of MCTS licence 146, 152-152
Section 37(1)(a) – MCTS licences 152
Section 37(2) – fixed links 174
Section 37(2)(b) – additional MTCS licences 154
Section 37(3) 140
Section 38 191, 196
Section 38(2) 182
Section 39 191, 196
Section 40 256
Section 40A – under-serviced area licence 144, 191, 196, 241, 243
Section 40(1)(a) (Vans) – Telkom 42, 158
Section 40(2) – Vans 156-157, 174-175, 182
Section 40(4)(b) – VPN 158
Section 41(1) – instruction to construct and operate a PTN for education 46
Section 41(1)(b) – PTN 159-160
Section 41(1)(c) – authorise Eskom to operate PTN 43, 160
Section 41(2)(a) 182
Section 42(1) 33
Section 43 – interconnection regulation 30, 179, 188
amendment to 191, 196
Section 43(1) – interconnection 180-182, 184
Section 43(2) – agreements to be lodged with authority 182
Section 43(3) – negotiation rules 31, 182
Section 43(4) request for facilities leasing or to interconnect 182-184
Section 43(5)(b) – authority may impose terms and conditions 184
Section 43(6) – enforceability of terms and conditions 184
Section 43(8) – negotiations not precluded if licence not awarded as yet 184
Section 43(10) – period of interconnection agreement 185
Section 43(11) – interconnection rates to be made public 185
Section 44 – facilities leasing regulation 30, 179, 196-197
amenment to 191, 196
Section 44(1) – leasing of facilities between Telkom, Transnet and Eskom 181
Section 44(2) – leasing of facilities between Telkom and PSTS providers 181
Section 44(3) – leasing agreements 183
Section 44(4) – agreements to be lodged with authority 182-183
Section 44(5) – negotiation rules 31, 182
Section 44(6) – authority to prescribe guidelines 182
Section 44(7) – provision of facilities other than from Telkom 182-183
Section 45 – fees/charges determination 31, 201-202
Section 45(2) – rate regime determination 203, 207
Section 45(3) – fees/charges, public schools and training institutions 202
Section 46 – accounts and records kept by licensees 31,
telecommunications licensing
see licensing
telecommunications policy 23-25
market structure 24-25
telemcommunications pricing regulation 200-214
accounts and records to be kept by licensees 202
definition 201
provisions by the Telecommunications Act 201-202
regulation of MCTS retail pricing 209-211
regulation of PSTS retail pricing 203-209
regulatory accounts 211-214
telecommunications providers
switching costs 88-89
telemcommunications regulation 20-47
see also telecommunications
and competition 123-124
consers 47-48
Constitutional Framework 20-22
economics of 89-98
some aspects of ex-ante regulation 90-94
some aspects of ex-post regulation 90, 94-98
future policy proceeding 28
how 19-20
International Law 28-30
national legislation 30-47
National Policy 23-28
reasons for 18-19
regulatory framework, bird’s-eye view of 20, 47
sector-specific versus general competition 127-128
telemcommunications regulations
made by Icasa 30-31
telemcommunication regulators 100-130
comparative analysis 101-102
competition regulation 123-128
Icasa 110-112
independence of 113-122
administrative 119-121
Councillors’ obligations to ensure 118
elements of 119-122
financial 121-122
relationship between Minister and Icasa 114-118
international instruments/organisations 107-110
legislatve framework 20, 47, 102-107
staffing 122-123
Telecommunications Regulators’ Association of
Southern Africa (Trasa) 109-110

Index

202, 211
Section 48 – amendment of licences 145-146
Section 50 – transfer of licences 147
Section 52 – competition 124, 143-145
Section 53 – empower Icasa to deal with
uncompetitive actions 124
Section 54 134
Section 56 – registration as supplier 169
Section 58 – establishment of USA 221-222
Section 59 – USA to define universal service and access
221-222
Section 65(1) – establishment of USF 224
Section 66(1) – subsidisation of needy persons 227
Section 66(2) – USF money 227
Section 67 – contributions to USF 31, 224-227
Section 67 (2) – amended 226
Section 67A(3) – disbursement of USF funds through
competitive bidding 230
Section 80(2) – administration of Human Resources
Fund 105
Section 88 – licence fees 169-170
Section 89 – numbering plan 31
Section 95 – radio regulations 21, 30, 104-105, 129
Section 96 – regulations 21, 30, 104-105, 129, 226
Section 96B 28
Section 97 211
Section 100 176
Section 130 – Telkom 42
telecommunications regulation 30-33
Telecommunications Amendment Act, 64 of 2001 24,
181, 202, 238-243
e-rate (education rate) 238-239
issuing 1800 MHz and 3G spectrum 238-240, 245
objectives 238-239
provision of broadcasting signal distribution services
43
Rate Regime Dispute 207-208
reciprocity requirement 180
Sentech multimedia rollout 240
under-serviced area licences (USALs) 241-243
USF money use 229
telecommunication facility/ies
definition according to the Telecommunications Act
138
telecommunications industry
managed liberalisation 133
member countries 109
objectives 109
telecommunication/s service licences 137-164
Chapter V of the Telecommunications Act 137-164
amendment of licences 145-146
applications and consideration of applications 142-143
categories of telecommunication service licences 140-142
Global Mobile Personal Communications by Satellite Services 163-164
international telecommunication service 142
legislative requirement 137-140
call-back operations 138
least cost routers 139-140
wireless local area networks 138-139
mobile cellular telecommunication services 142, 151-156
Mobile Data Services 164
multimedia service 142
national long-distance telecommunication services 159-160
public switched telecommunication services (PSTS) 142, 147-151
renewal of telecommunication service licences 146
Sentech 161-163
transfer of licences 147
under-serviced area licences 160-161
value added network services (Vans) 156-159
telecommunication/s service providers (TSPs) 299, 307, 311-312
archived communication-related information 320
compensation payable to, for interception 328-329
interception of communication 318
telecommunications services
complementary components 88
definition according to Telecommunications Act 137-138
licences 134
provision of, in terms of Telecommunications Act 134-135
telecommunications standards 87-88
telecommunications systems
definition according to Telecommunications Act 137
telecommunications technologies 50-81
circuit versus packet technologies 53-54
digital versus analogue communications 52-53
Internet 62-66
Legacy Wireline (Copper) Technologies 61-62
Multiplexing Mechanisms 55-57
speed of transmission 54-55
Television and Satellite Technologies 60-61
Wireless Technologies 57-60
television and satellite technologies 60-61
analogue television 60
cable television 61
C-band and KU-based satellite 61
digital television compression 60
high-definition television (HDTV) 60
Telkom SA Limited 27-28, 113, 129
amendments to licence (2001) 24, 145
anti-competitive behaviour 176
authority to provide services in terms of Telecommunications Act 42
case between Satellite Data Networks and (1999)175
case between Transnet Ltd and (2002) 177
COA/CAM 214
court ruling in case against Icasa (1999)177
cumulative rollout figures, 1997-2002 232-233
declared Essential Facilities provider 194
declared Major Operator 194
exclusivity and universal service 231-234
exclusivity period 23
facilities leasing 174
Filing of Tariffs – Icasa 208-209
First Icasa Rate Regime 204-206
funding from Icasa 115
interdict restraining MCTS 139-140
ISDN, introduced by, in SA 62
leasing of facilities – Section 44 of Act 181
licensed to provide a PSTS 147-149
licensed to use 1800 MHz by 21 Feb 2002 25
matter between AT&T and 113-114, 158-159, 176-177
on financial assistance to implement ROICA 328
partial privatisation 251
Post Office Act
Chapter1B and II – staff, pension matters, finances 42
Post Office of 152-153
Index

PSTS regulatory accounts 212-213
Rate Regime Dispute 207-208
Rate regime review 204
regulatory accounts in accordance with COA/CAM 212-213
rollout obligations 232-234
telecommunication services, control of 251
Telkom Price Control Regulations (2005) 339
major changes 339
Telnet
UF terminal emulation software that allows a remote user to access files and resources on a network
Internet Protocol 63
terminal equipment 140
terminology 67-81
The Internet
see Internet
Thintana Communications LLC 27
Thinta Thinta Telecomms (Pty) Ltd 337
third generation
see also 3G
third-generation mobile communications 79
third-generation (3G) services licences 25
MCTS 167-168
time-division multiplexing (TDM) 55-56
definition of 79
Transmission Control Protocol/Internet Protocol
see TCP/IP
transmission media, definition 79
transmission speed 54-55
Transnet Limited 27-28
court ruling in case against Icasa (2002) 177
equity interest of SNO set aside 42-43, 105, 150
leasing of facilities – Section 44 of Act 181
Legal Succession to the SA Transport Services Act, regarding 42-43
transparency, principle of Gats 136
twisted pair, definition of 79
TWO Consortium (Pty) Ltd
qualified for phase 2 of SNO licensing process 151
share a 26 percent stake of SNO (2003) 151

U
Ucingo Investments (Pty) Ltd 27
Uganda
comparison of application of USF monies internationally 229-230
comparison of USFs administration 225
contribution to USF 227
UMTS
see Universal Mobile Telephone Service
UNCITRAL Model Law on E-Commerce 263
under-serviced area licences (USALs) 32, 241-243, 245
changes as in postscript 337-338
contribution to USF 226
exempted from complying with COA/CAM 212
financing 242
international comparison of regional licences 242-243
licence category 141
licences 144-145, 160-161
licences awarded in the first round of USAL licensing 337
provided for in Telecommunications Amendment Act 238
Understanding on Rules and Procedures Governing the Settlement of Disputes 29
Uniform Association South Africa 64
Uniform Electronic Transactions Act (UETA) 287
Section 8 292
US UETA and ECT Act 292
Uniform Resource Locator (URL) 70
definition of 79
United Kingdom (UK)
addressing convergence needs 257
approach to interconnection 178
comparative analysis, telecommunications regulation 102
Competition Act 125
data retention 330
developing privacy legislation 285
electronic communication legislation 263
interception and monitoring of electronic communications in business 314-317
interception monitoring legislation 298
interconnection disputes 125
regulation of electronic communication 285, 287
United States of America
data retention 330
electronic communication legislation 263
E-Sign Act 284
interception devices prohibited 309
interception monitoring legislation 298
obligations placed on TSPs in 328
regulation of electronic communication 285, 287-288
Electronic Signatures in Global and National
Commerce Act (e-Sign Act) 287-288
Uniform Electronic Transactions Act (UETA) 287
use of co-operatives to expand access to under-
serviced communities 243
use of SDH 77
use of SONET 78-79
use of PDH 76
universal access
see universal service and universal access
Universal Mobile Telephone Service (UMTS)
definition of 79
Universal Service Agency (USA) 30, 221-224
administration of USF 224-225
affordability of universal access 223
Board appointed in 2002 231
Business Plan, 2003 228-229
definition of needy people 222
development of definitions 222
establishment and functions 221-222
key policy projects of 222-224
manage liberalisation of telecommunications industry 133
management of USF 224-230
motivation for establishment 230-231
restructuring of 230-231
role and relevance of 221-224
USA/USF Business Plan core programmes 229
universal service and universal access 216-245, 335
definition 217
gender and 243-244
landscape 218-221
from the White Paper to the Telecommunications
Act 220-221
ITU: 'The Missing Link' (Maitland Report) 218-219
WTO: SA’s international commitments 219-220
MCTS operators’ role in provision of universal service
and universal access 234-238
Cell C (new entrant) CSOs 235-236, 251
MCTS commercial rollout 236
MCTS Joint Economic Development Agreements 237-238
MTN and Vodacom community service obligations 234-235, 238
role and relevance of prepaid technology 237
restructuring of USA 230-231
role and relevance of USA 221-224
establishment and functions 221-222
key policy projects 222-224
role and relevance of USF 224-230
administration of USF 224-225
application of USF money 227-230
contributions to 225-227
Telecommunications Amendment Act, a shift in
thinking about universal access 238-243
e-rate 238-239
issuing of 1800 MHz and 3 G spectrum 239-240, 245
Sentech: rolling out multimedia 240
under-serviced area licences 241-243
tellcom’s exclusivity and universal service 231-234
rollout obligations 232-234
Universal Service Fund (USF) 30, 85, 218, 224-230, 244-
245
administration of USF 224-225
comparision of application of USF monies
internationally 229-230
comparison of international strategies for determining
226-227
contributions to 225-227
international comparison on administration 225
management by USA 224-230
money application of 227-230
role and relevance of the USF 224-230
SMMEs 242
USA/USF Business Plan core programmes 229
United States 104
UF USA
comparative analysis, telecommunication regulation 101
councillors of telecommunications regulator 120
court ruling regarding licence fees 170
ex-ante approach to interconnection 178
telecommunications regulator, funding 122
URL
see Uniform Resource Locator
USAUs
see under-serviced area licences
user datagram protocol (UDP) 63
USF 85
value added network services (vans) 23-24, 32, 83, 91, 111, 156-159
AT&T matter 158-159
contribution to USF 226
declared Public Operators 191, 196
difference between PTN and 159-160
enquiry in terms of Section 27 into VPNs 158
examples of 157
facilities leasing 174
facilities to build networks (Feb 2005) 334-335
fees and charges 202
Internet as vans 157
Internet Solutions matter 159
licence category 141
licence fees 170
licences, policy direction 144
new regulations (20 May 2005) – No R 490 338
restriction to resell excess capacity lifted (Feb 2005) 335
Section 40 – restrict licences 256
VDSL
UF very high data rate Digital Subscriber Line
definition 80
Veljanovski, on price squeeze types 97-98
very high data rate Digital Subscriber Line
see VDSL
Virtual Private Network
see VPN
Vodacom Group (Pty) Ltd (Vodacom) 139-140
amended MCTS licence granted to 153
COA/CAM 214
community service obligations 234-236, 238
fixed links 174
MCTS licence granted in 1993 to 151-152
on financial assistance to implement ROI/CA 328
price cap mechanism 209
reduced tariffs for CSTs 210
regulatory accounts 213-214
Voice over Vans 25, 48
restriction on licensees lifted (Feb 2005) 334
voice telephony communications services 336
VPN
UF Virtual Private Network
definition of 80, 158
enquiry in terms of Section 27 into VPNs 158
W
WAN 74
UF wide area network
definition of 80
use of statistical multiplexing 56
WAP
UF Wireless Application Protocol
definition of 80
time-division multiplexing 55
wavelength division multiplexing (WDM) 56-57
definition of 80
dense wavelength division multiplexing (DWDM) 57
on convergence 25
White Paper on Telecommunications 234
from, to Telecommunications Act 220-221
licence fees 170
USA define affordability 223
White Paper on Telecommunications Policy (1996) 18, 22-24, 47, 217
Chapter 3, state-owned enterprises 27
exclusivity period for Telkom SA Limited 23, 148
interception and monitoring policy 27
objectives of Satra 110
on convergence 24-25
resale of facilities leased from Telkom 23
SNO provided for by 148-149
wide area network
see WAN
WiFi 66
UF Wireless Fidelity
definition of 80
WiFi or WLAN or 802.11 58
WIP Investments Nine (Pty) Ltd
qualified for phase 2 of SNO licensing process (2002) 151
Wireless Application Protocol
see WAP
Wireless Business Solutions (WBS) 33
amendments to licence 164
holder of national mobile data telecommunications licence 164
Wireless Fidelity
see WiFi
Wireless Local Area Networks
see WLAN
wireless technologies 57-60
  Bluetooth 58
  free-space optics 59
  GSM cellular standard 57-58
  infrared-red communication 59-60
  microwave 58-59
  WiFi or WLAN or 802.11 58
WLAN 66
UF Wireless Local Area Network
  definition of 80
  legislative requirement 138-139
women
see also gender
  and USAIs 243-244
  empowerment in terms of Telecommunications Act 135, 243-245
gender gaps in ICT sector/industries 244
World Trade Organisation (WTO) 108
  administration of Gats 108
governments to settle disputes at 29
  interconnection 178-179
  Reference Paper 179
  SA obligations 135-137, 219-220
World Wide Web
see WWW
WTO
see World Trade Organisation
WWW
UF World Wide Web
  browser 68, 76
  browser examples 68, 76
  definition of 80
X
X.25, definition of 81
Z
.za Domain Name Authority
  established in ECT Act 38
  Section 59 of ECT Act 280-281
.za domain space 38