Index

802.11 standard 8, 24
ActiveSync protocol and pledges 29, 221–2
Agere, injunction action 120–21
AirBnB, patent pledge 2
Alcatel-Lucent, pledge 15, 16
Allied Security Trust (AST) antitrust issues 159
    catch-and-release approach 158
Amazon.com 260–62, 263–4, 275
Android operating system 1, 9, 32, 43, 164, 279
anticommons theory 73–4, 84
antitrust and competition law
    Brazil 193–4
    China 201–3, 204–7
domain position and abuse thereof 174–5
    and enforcement of patent pledges 106–12
European Union 106, 168ff
    horizontal arrangements
        and OPAs and DPAs 158–60
KFTC see Korean Fair Trade Commission
Korea 213–16, 219–22
monopolization 107–8
open source software
    Germany 157–8
    U.S. 157
predatory pricing 160
price competition
    and OPAs and DPAs 160–61
rule of reason 155
TFEU see Treaty on the Functioning of the European Union
Apache web server 9
Apple
    involvement in EC enforcement actions 173
    ITC exclusion order 132
    litigation with Samsung
        Korea 210
        U.S. ITC 132–3
    as member of Rockstar Bidco 34
    pledges 7, 33–4
    v. Motorola see Apple v. Motorola
Apple v. Motorola 14, 17, 103, 172–3, 212, 271
    application programmer interface (API) 264–5
AT&T 7
Bayh-Dole Act 65–6
Betamax standard 28–9
BioBrick licenses 254
BiOS initiative 255
biotechnology, pledges and 10–11, 34, 56ff
block chain technology 312–14, 316
Bluetooth standard 30
BMI v. CBS 166
Broadcom v. Qualcomm 109
CAMBIA 255
Canada’s Oil Sands Innovation Alliance (COSIA) 94–5, 96
CDMA standard 15
Cisco, pledges 7, 12, 21, 23
clearinghouses for intellectual property 64–5
climate change 82–3
cloud computing 260–62
commercially essential technologies 37
community licensing see patent pools

337
Compact Disc (CD) standard 28, 176–7
competition law see antitrust and competition law
compulsory licensing
in Brazil 194–5
and patent pledges in the developing world 280–81
contract law and patent pledges
German law 138–42
Korean law 211–13
U.S. law 101–4
Court of Appeals for the Federal Circuit (CAFC)
policy levers 75
covenant not to sue see royalty-free licensing
German law 141–2
Creative Commons licenses 249
CRISPR technology 58
de facto standards
generally 28
Korea 218, 220–22
Defensive Patent Aggregator (DPA) see Non-Practicing Entities
Defensive Patent License (DPL) 18, 32–3, 44, 154–5, 255–8
Dell 7
Department of Justice (DOJ), U.S.
and ITC exclusion orders 125, 134
joint DOJ-FTC 2007 intellectual property guidelines 157, 164
and open source software 162
as recipient of pledges 33–4
developing countries 84, 85, 96–7, 191, 278–9, 280–82
DMARC specification 12, 21
Dow Chemical 10, 21
Dropbox, patent pledge 2
DuPont 10, 21
DVD standard 24
eBay v. MercExchange see injunctive relief
Eco-Patent Commons (EPC)
compared to GreenXchange 93
developing world impact 281–2
generally 10, 20, 21, 35, 36, 90–92, 96, 254, 292
equitable servitude and pledges 113
Environmental Law Institute 10, 20, 91
Ericsson
as member of Rockstar Bidco 34
pledges 7, 12, 15, 16, 27
esential facilities doctrine 109
estoppel see promissory estoppel
Ethernet standard
generally 8
N-Data case 110
European Telecommunications Standards Institute (ETSI) 8, 172, 173, 210, 211–12, 287
European Unitary Patent system 170, 187–8
exclusion orders see International Trade Commission
exhaustion of rights 51–4
Facebook, pledges 21
Fair, Reasonable and Nondiscriminatory (FRAND) licensing
China regulation 204–5
in developing countries 279
and DPL 155
enforceability of 101ff
generally 12, 13, 14, 15–17, 26, 34, 37, 97, 242
and injunctions 171
as a remedy in Microsoft case 189
Federal Circuit see Court of Appeals for the Federal Circuit
Federal Trade Commission (FTC), U.S.
and ITC exclusion orders 125
joint DOJ-FTC 2007 intellectual property guidelines see Department of Justice
N-Data case see in re Negotiated Data Solutions LLC
Robert Bosch case see in re Robert Bosch GmbH
Federal Trade Commission Act
Section 5 110–12
Firefox web browser 9
index

first sale doctrine see exhaustion of rights
Free and Open Source Software (FOSS) see Open Source Software
Fujitsu 16, 21

General Public License (GPL) see Open Source Software
German law
contract law theories 138–42
enforcement of patent pledges 138, 140–42
good faith defense 145–6
simple consent 144–5
waiver of rights 143–4
Google
acquisition of Motorola Mobility 34, 201–2
Android see Android operating system
cloud computing 260–62, 275
cloud computing patents 263–4
FTC order see Motorola Mobility, FTC order
Open Patent Non-Assertion Pledge 43–5, 47, 142
patent acquisitions 80–81
patent purchase program 81
pledges 9, 12, 33–4, 43–5, 270–72, 280, 328–30
government use rights 65
GNU software see Open Source Software
GPRS standard 172
GreenXchange 92–4, 96
Green Technology
in China 200
patents 84–5
pledges 10, 11, 82ff
GSM standard 8

H.264 standard 8
Hewlett Packard Co.
as member of EPC 10, 21, 91
Hitachi 21
hold-out 121
hold-up 25, 121, 125
HTTP 8, 24
Huawei 7
Huawei v. Interdigital (China) 201, 203–4
Huawei v. ZTE 115, 169, 171–3, 177–8, 180–81, 182–3
IEEE Standards Association 8, 120, 287
policy amendments 16
IMS Health case 175–6
India 277–82
Information and Communications
Technology (ICT) sector 6, 8, 199
injunctive relief
eBay v. MercExchange 50, 120–24, 127–8, 169–70, 184
Korea 213
for NPEs 123
pledges that limit 13, 17
innovation
in developing countries 278
encouragement of 161–7
management of 249–52
open innovation movement 252–3
races 153
Intel Corp. pledges 7, 16
Interdigital Corp.
China NDRC investigation 205–6
Huawei v. Interdigital see Huawei v. Interdigital (China)
International Business Machines Corp.
(IBM)
antitrust 160
cloud computing 260–62
cloud computing patents 263–4, 266–7
as member of EPC 10, 21, 91
pledges 1, 7, 31, 38–9, 79, 267–9, 278, 286, 326–7
services 31
International Organisation for Standardization (ISO) 8
International Telecommunications Union (ITU) 8
Patent pledges

Internet Engineering Task Force (IETF) 8, 14, 20, 22
Internet Protocol (IP) 8
ISO 9000 standard 8
ISO 14000 standard 8

Korean Fair Trade Commission (KFTC) IPR Guidelines 209, 216–18 as recipient of pledges 222

Letters of Assurance (LOAs) 19
License on Transfer (LOT) network 45
and pledges 42, 154, 257
Linux operating system antitrust challenges 156
commercial distribution 251
and innovation 162
pledges 1, 9, 31, 39–40, 41–2, 154
service-based revenue model 163, 251, 267
lock-in 25
Long Term Evolution (LTE) standard 2, 8, 15
Lumia see Microsoft Corp., purchase of Nokia handset business

Magill case 175, 176
MapReduce 43
market reliance theory 46, 114–15, 161
Massachusetts Institute of Technology (MIT) 11, 21
Matsushita VHS standard see VHS standard
Max Planck Institute, pledges 21
Microsoft Corp. ActiveSync see ActiveSync protocols Android licensing 279
Brazilian antitrust action 190
cloud computing 260–62, 275
cloud computing patents 263–6
European antitrust litigation 189
Interoperability Principles 29–30
as member of Rockstar Bidco 34
open source software 251
pledges 7, 22, 29, 33–4, 236, 273
purchase of Nokia handset business 202–3 (China), 220–22
Microsoft v. Motorola 14, 15, 45, 101, 103, 172–3, 212
Mitsubishi Electric 16
Monsanto, pledge 1, 11, 332
Motorola Mobility acquisition by Google 34
EC enforcement action 172–3, 177
FTC consent decree 111
FTC order 17
Microsoft v. see Microsoft v. Motorola
pledges 15
v. Apple see Apple v. Motorola
Myriad Genetics BRCA gene patents 58
pledge 11, 34, 331
National Semiconductor pledge 110
NEC, pledges 15, 16
in re Negotiated Data Solutions LLC (N-Data) 110, 292–3
NextWave, pledges 15, 16
Nokia as member of EPC 10, 21, 91
pledges 15, 16, 27
Nokia Siemens Networks, pledges 15, 16
Non-Practicing Entities (NPEs) absence in biotechnology 71–3
Allied Security Trust see Allied Security Trust business models 76
catch-and-release approach 158
defensive mechanisms 258–9
Defensive Patent Aggregators (DPA) 158
generally 67–8
injunctive relief 123
litigation 68–9, 167
pledges restricting transfers of patents to 13, 17–18
RPX Corp. see RPX Corp.
taxonomies 69–71
Nortel Networks, pledges in bankruptcy
34, 293
Novell, pledge 38
NTT DoCoMo, pledge 16, 27

Open Innovation (OI) movement see
innovation, open innovation movement
Open Invention Network (OIN) 9–10,
21, 39, 41–2, 154, 255, 272
Open Patent Agreements (OPAs)
antitrust analysis of 156–7
defined 154
Open Patent Non-Assertion Pledge see
Google
open science 57, 59
Open Source Software (OSS)
Antitrust analysis
Germany 157–8
U.S. 157
in China 199–200
enforcement of licenses in Germany
137, 139
General Public License (GPL) 156,
157, 162
and innovation 249–52
Jacobsen v. Katzer 165
Licenses 47, 59
movement 58
pledges relating to 8–9, 37–9, 326–7,
328–30, 333–5
service-based revenue model 163,
251
Open Web Foundation 12, 20
specifications 21
OpenStack platform 9, 266–7, 268–9,
272–3, 275
Oracle v. Google 265
Orange Book Standard case 176, 181
Panasonic, pledges 16, 274
Patent Assertion Entity (PAE) see
Non-Practicing Entities
patent law
Brazilian patent law 190–93

in China 197
cloud computing patents 263–7
commercialization theory 229–30
compulsory licensing see compulsory
licensing
disclosure requirements 229, 238–9,
243–4
European Unitary Patent see
European Unitary Patent system
independent invention defense 243
informational value 227, 232–3,
244–5
misuse doctrine 112
moral opposition to 166–7
prior art 13, 299, 308–10, 315
prior user rights 241
prospect theory 229
registration system 294–5
renewals 286
right to exclude 228, 237–8, 241–3
Patent Pledge Database at American
University 3, 299
patent pledges
beneficiaries 46, 102–3
in China 199–200
collective action 32–3, 151, 152–3
coordinated 18–20
defensive termination/suspension
327, 329–30, 334
disappearing 48–9, 290–92
distinguished from licenses 50
enforcement
EU 168ff
Germany 137ff
U.S. 101ff
identification of patents 11–12,
318–19
inducement 24–32, 36
informational value 232–3, 234–7,
239–40, 290–92, 301–2
interoperability 24–32
made in SDOs 18–19, 25–6
made outside of SDOs 26–7
made to government officials 22–3
market development 30–32
metadata 303–4
motivations 3, 24, 285–6
Patent pledges

non-assertion commitments see
royalty-free licensing
notice function 245, 290–93
ontology 304–6
open innovation 253
philanthropy 35, 78
platform leadership 27–30
public relations benefit 36, 78
public statements 23
recordation 288, 310–16, 321
registry 288, 294–300
relationship with patent theory 230–32
retractions 48–9
scope 12–18, 319–20
"the patent pledge" 35, 139
transfer of pledged patents 13, 292–3, 321, 325, 329
unilateral 20–23, 37ff, 287–8
valuation 50–51
voluntary restraint 33–4, 36
patent pools
antitrust analysis 157
in biotechnology 60–64
compared to OPAs 161
generally 152–3
Golden Rice pool 62–3
in green technology 89
relation to patent pledges 41–2
patent thicket 73
patent trolls see Non-Practicing Entities
Philips 28
platform technology 28, 274–5
privateering 44
promissory estoppel and patent pledges 45–6, 105–6, 212–13 (Korea)
Qualcomm, Inc.
China NDRC investigation 206–7
pledges 15
Rackspace 262, 266–7, 269
Rambus v FTC 108
Raymond, Eric S. 164
Reasonable and Nondiscriminatory (RAND) licensing see Fair, Reasonable and
Nondiscriminatory (FRAND) licensing
Red Hat, Inc. 38, 40, 163, 251, 333–5
registries see patent pledges
reliance interests in patent pledges 45–6
Research in Motion (RIM) as member of Rockstar Bidco 34
in re Robert Bosch GmbH 111, 161
Rockstar Bidco 34
royalties, patent base 15–16
caps 13
maximum 14–15
royalty-free licensing by OPAs 161
pledges 13, 14, 22, 26, 40
strategic considerations 286
RPX Corp.
antitrust issues 159
purchase of Inventus Solutions 308
Samsung
EC enforcement action 172, 177
pledges 7, 21
Siemens, pledges 16, 27
Sony
as member of EPC 10, 21, 91
as member of Rockstar Bidco 34
Betamax see Betamax standard
CD standard see Compact Disc (CD) standard
pledges 7, 16
Sony Ericsson, pledges 15, 16, 21
Southern California Edison, pledge 12
Standard-Spundfass case 176
Standards Development Organizations (SDOs)
Bylaws 19
FRAND commitments see Fair, Reasonable and Nondiscriminatory (FRAND) licensing
organizational structure 19
pledges made in 18–19, 25–6
policies 25
Standards-Essential Patents (SEPs)
and ITC exclusion orders 129–30
generally 37
standards wars
Betamax v VHS 28–9
Stellar Consensus Protocol (SCP)
315

Tesla Motors, pledge 1, 22, 30–31, 40,
79, 126, 197–8, 235, 239–40, 278,
324–5
Toyota, pledge 1
Transmission Control Protocol (TCP) 8
Treaty on the Functioning of the
European Union (TFEU)
article 102, 178–80
generally 168–9
TRIPS agreement 194–5

UMTS standard 8, 172, 211
unfair methods of competition (FTC Act) 110–11

U.S. Trade Representative
disapproval of Apple ITC exclusion
order 132–3

Verizon, pledges 7, 22
VHS standard 28

W-CDMA standard 15, 21, 27
Wi-Fi see 802.11 standard
Wikipedia 165
WiMax standard 15
Worldwide Web Consortium (W3C) 8,
14
Worldwide Web (WWW) protocol 8

Xerox Corp.
as member of EPC 10, 21, 91
XML 8

Yahoo!, pledges 21, 23

ZTE see Huawei v. ZTE