

Publikationen aus dem Zentrum für Informations- und Kommunikationsrecht der Universität Zürich

Jun Wu

Telecommunications Competition and Its Driving Force

A Comparative Study of Telecommunications Law of the EU, the US and China



Table of Contents

Abbi	reviat	ions		X		
Bibli	ograp	ohy		XIV		
EU Regulations, Directives and the Other Relevant Rules			XX			
		reak-Up of the Telecommunications Monopolies				
	A.	Crumbling Legality of the Telecommunications Monopolies				
			Natural Monopoly Besieged by Technological Development	1 2		
			a) Monopoly of AT&T Gradually Eroded	2		
		1	b) State Monopoly of Telecommunications in the EU			
			Countries and China	6		
			Competition in a Globalizing Market	7		
		1	a) Operators in the EU and China Pressed by Outside			
			Competitors	7		
			b) The Information Society	8		
			c) China's Task to Modernize Its Telecommunications Industry	0		
	B.	Annr	oaches to Removing the Telecommunications Monopolies	9 9		
	D.		US Antitrust Mentality	9		
			a) Judicially-Imposed Antitrust Remedies for AT&T's	,		
			Monopoly	10		
		1	b) The 1984 MFJ	11		
			c) Comments on the 1984 MFJ	16		
		2.	Privatization of the Telecommunications Industry	16		
		;	a) Liberalization of the Telecommunications Industry in the			
			UK	16		
		1	b) Liberalization of the Telecommunications Industry in			
			Germany	17		
			The 1987 Green Paper of the EC	19		
			a) Abolition of Exclusive or Special Rights	20		
			b) Harmonization Based on ONP	26		
			Initiation of Telecommunications Liberalization in China	27 27		
			 Monopoly Gradually Lifted Overseas Listing of Major State-Owned 	21		
			Telecommunications Operators	33		
			c) Further Liberalization	35		
**	an i		·			
II.			unications Regulatory Mechanisms	39		
	A.		try-specific Regulatory Model	39		
			Industry-Specific Regulation	39		
			a) Liberalization Entails the Industry-Specific Regulation	39 40		
			 b) Industry-Specific Regulation c) Provision of Telecommunications Services for Social 	40		
		•	 Provision of Telecommunications Services for Social Purpose 	41		
		2.	Industry-Specific Regulation?	41		
			a) Development of the New Zealand Model	41		
			b) EU Framework Directive of 2002	42		

			c) From Oftel Era to Ofcom Era	44		
		3.	Relations between Regulatory and Competition Authorities	46		
			a) Natural Monopoly or Not?	46		
			b) Mixture of Competition Law and Regulation	47		
			Sector-Specific Regulation in China	49		
	B.		pendence of the Telecommunications Regulatory Authority	49		
		1.	Establishment of Independent NRAs in EU Member States	49		
			a) Legal Basis	49		
			b) Regulatory Independence in the NRF	51		
			Establishment of an Independent Regulatory Authority in China	51		
			a) Establishment of the MII	51		
			b) Establishment of the State-Owned Asset Regulatory	60		
			Commission (SARC)	52 55		
III.	Telecommunications Equipment Market					
	А.		Most Competitive Telecommunications Market	55		
		1.	Liberalization Began in the EC	55		
			a) Terminal Equipment Directive	55		
			b) Non-Terminal Telecommunications Equipment	56		
			Competition in the CPE Market of the US	56		
			a) Restrictions Imposed on AT&T	56		
			b) Relevant Requirements Set by the 1984 MFJ	56		
			c) 1996 Telecommunications Act	57		
			Liberalized Telecommunications Equipment Market in China	58 59		
			a) Network Access Licensing System	29		
			b) Liberalization of the Telecommunications Equipment Market	61		
	B.	Cons	vergence and its Implications	62		
	D.		The Convergence Trend in Telecommunications Market	62		
			The EU's Acknowledgment	63		
			a) Convergence Green Paper	63		
			b) The Information Society Approach	64		
			The US	64		
			a) Computer I	65		
			b) Computer II	66		
			c) Computer III	67		
		4.	Convergence in China	68		
		5.	VoIP	69		
			a) Three Models for VoIP and Its Regulatory Implications	69		
			b) Regulatory Policies in the EU and the US	70		
			c) SkyPe in China	75		
IV.	Netv	vork A	ccess and Interconnection and Last-Mile Issue	77		
	A.	Loca	l Loop Access Market	77		
			Baby Bell's teeth and the Restrictions Forced upon Them	77		
			a) Shaky Business Line Restrictions	77		
			b) 1996 Telecommunications Act	78		
		2.	Approaches to Regulate the Local Loop Market in the EU	81		
			a) Logic behind Liberalization Initiated by the Commission	81		
			b) Segment-by-Segment Liberalization	82		

		c)	Pro-Competition Approach Adopted after the			
			Liberalization	83		
В.	Net	work	Access and Interconnection	83		
	1.	Pra	ctices for the Application of the Theory	83		
		a)	"Essential facilities" in US Antitrust Law	83		
		b)	Development of the "Essential Facilities" Doctrine in EU			
			Competition Law	85		
	2.	Ар	plication of the Essential Facilities Doctrine in the Sector	87		
		a)	US Network Access and Interconnection Regime	88		
		b)	Application of the Essential Facilities Doctrine in the EU	96		
C.	Last-Mile Issue and Network Access and Interconnection Regime of Cl					
	1. Last-Mile Issue in China					
		a)	Natural Monopoly?	105		
		b)	Intermodal Competition in China	106		
		c)	Trapped Incumbents and the Bounded Market	106		
	2.	Net	twork Access and Interconnection in China	108		
		a)	Development of Network Access and Interconnection			
			Regime in China	108		
		b)	Interconnection Obligation Imposed on Operators	109		
		c)	Non-Dominant Operators	110		
		d)	Dominant Operators	111		
		e)	Outstanding Issues	113		
D.	Imp	olicat	ions of Technological Developments	118		
	1.	Cał	ble TV Network Operators	118		
		a)	Cable TV Networks Touched by the Liberalization	118		
		b)	Cable TV Networks in the US Telecommunications			
			Market	120		
	2.	Dev	velopment of Wireless Telecommunications Technologies	122		
		a)	Market Potential of Microwave Technologies	122		
		b)	Fixed Wireless Communications Technologies	122		
		c)	Mobile Telephony Business	123		
	3.	Res	sponse from the Telecommunications Regulatory Regime	124		
		a)	Deliberation by the EU	125		
		b)	Mixed Reflection by the FCC	126		
	4.	Nu	mber Portability, Selection of the Operator	127		
		a)	Number Portability	127		
		b)	Selection of Service Provider	128		
	5.	Co	nclusion	129		
		a)	Facilities-Based Competition	130		
		b)	Technological Neutrality	130		
D.	Cas	se Sti	udies- SBC Merging with AT&T	131		
	1.		ckground	131		
	2.	An	alysis of the Local Telecommunications Market	132		
		a)	Product Market Definition	132		
		b)	Competition Analysis	134		
	3.	Co	mments	137		

v.	Righ	t of \	Nay	139	
	A.	Right of Way in the EU and the US			
		1.	Right of Way in the EU	139	
			a) Structural Seperation	139	
			b) General Authorization	140	
		2.	Right of Way in 1996 Telecommunications Act	140	
			a) Access to Right of Way of all LECs	140	
			b) Duty of an Utility to Provide the Right of Way	141	
	В	Stat	e-Owned Land System	142	
		1.	Land-Use Right System in China	142	
		2.	Authorized Land Use System	143	
		3.	Right of Way in the Telecommunications Sector	144	
			a) Right of Way for Infrastructure Construction	145	
			b) Access to Right of Way of the Incumbents?	146	
VI.	Stan	dard	s, Authorizations and 3G	147	
	A.	Battle for Standards			
		1.	Legal Implications of Telecommunications Standards	147	
			a) General Competition Law Concerns	148	
			b) Telecommunications Law Concern	150	
		2.	CDMA, W-CDMA and TD-CDMA	152	
		3.	Dominance of W-CDMA	153	
			a) General Standard Regime	153	
			b) 1998 UMTS Decision	155	
		4.	China's 3G Standard Policy Options	156	
			a) 2G Standards in China and Their Implication for 3G	156	
			b) Feasibility of the Co-Application of the Three Standards		
			Available	158 159	
	B.	Competition Implications and Authorization of 3G Services			
		1.	Implications of 3G for Convergence	159	
			a) 3G's Relations with 2G	160	
			b) Intermodal Competition with the Broadcasting Industry	160	
			c) Impact on the Market Definition?	160	
		2.	More Competition Rules or More Regulatory Rules?	161	
			a) More Regulatory Problems	161	
			b) Competition Issues for 3G	162	
		3.	3G Licensing	164	
			a) Telecommunications Licensing System	164	
			b) EU Authorization System	165	
			c) Relevant Legal Systems in the US	171	
			d) Authorization and Spectrum Policy in China	176	
		4.	3G License Issuance	180	
			a) License Issuance Model in the US	180	
			b) 3G License Issuance Model in the EU	183	
			c) 3G License Issuance in China	191	
		5.	Future of the 3G in China	193	
			a) Strict Division between Media and Telecommunications	193	
			b) Any Real Demand Under the Media Control Regime?	194	
			c) Further Restructuring is Needed	196	

VII.	Universal Service				
	A.	Universal Service in the Monopoly Era			
		1.	One Policy, One System, Universal Service	197	
			a) Cross-Subsidization	197	
			b) Post-Divestiture Universal Plan	198	
		2.	State Monopoly for Universal Service in EU Member States	199	
			a) Universal Service as Public Service	199	
			b) Article 86 (2)	199	
			c) Obstruction of the Particular Public Remix	200	
		3.	State Monopoly in China	201	
	В.	Univ	versal Service in the Competitive Environment	201	
		1.	Impact on Competition	201	
			a) Economic Interest and Public Service	201	
			b) Incumbent and New Entrants	202	
		2.	Universal Service Regime under 1996 Telecommunications Act	202	
			a) Federal-State Joint Board	202	
			b) Criteria to Assess the Scope of Universal Service	203	
			c) Financing of Universal Service	204	
			d) Price of Services and Access Charges	206	
		3.	Universal Service Regime of the EU	209	
			a) Cream-Skimming and the Definition of Universal Service	209	
			b) Scope of Universal Service	210	
			c) Financing of Universal Service	214	
		4.	Option for China to Establish a Universal Service Regime	218	
			a) Current Universal Service Regime	218	
			b) Urgent Need to Reform the Universal Service Regime in	010	
			China	219	
VIII	•	Conclusion		221	
	A.	Competition or Regulation?			
		1.	Regulation Evolving with Technological Developments	221	
			a) Total Natural Monopoly Era	221	
			b) Liberalization Driven by Technological Developments	221	
			c) Centralized Network	223	
		2.	Distributed Network and Its Implications	223	
	В.		npetition and State Holdings	225	
	С.	Indı	istrial Policy and Competition	225	