

# “Reasonable” licensing terms in patented standards

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# Ongoing research

- At Swedish School of Economics and Business Administration and Helsinki University of Technology
  - Patents & standards - the topic today
  - University inventions - a book in 2007, ongoing research on the implications of new university policies
  - Value of public domain - EU Commission study
  - Digital rights management and file sharing
  - Open source software - previously main topic

# Patents and antitrust in standards



## Beyond Broadcast 2008

Hosted by the American University Center for Social Media, June 17's Beyond Broadcast conference will be "Mapping Public Media," using mapping and visualization tools to examine shifting forms, functions and fiscal strategies for public media projects.

## April 8, 2008

FTC Chairman and Commissioners Testify Before Senate Committee on Commerce, Science, and Transportation on proposed 'Federal Trade Commission Reauthorization Act of 2008'

Federal Trade Commission Chairman William E. Kovacic and Commissioners Pamela Jones Harbour, Jon Leibowitz, and J. Thomas Rosch today presented FTC testimony before the U.S. Senate Committee on Commerce, Science, and Transportation, highlighting the agency's accomplishments since the last FTC reauthorization hearing in September, and providing comments on the proposed 'Federal Trade Commission Reauthorization Act of 2008.'

## April 10, 2008

Final Defendant Settles with FTC in Cross-Border Telemarketing Fraud Case

Charles P. Farrugia, a defendant in a Federal Trade Commission lawsuit against a fraudulent telemarketing scheme based in Canada, has agreed to settle FTC charges for his role in allegedly scamming American businesses into paying for business directories and listings they didn't order.

## Last entries

### "Efficient Patent Pools"

(September 2002). Tirole, Jean and Lerner, Josh, NBER Working Paper No. W9175

### Optimal Formation Rules for Patent Pools

by Steffen Brenner (2006)

### Ten Things to do about Patents holdup of standards (and one Not to)

by Mark A. Lemley (2007) [12]

## Recommended Papers

### Probabilistic Patents

by Mark A. Lemley and Carl Shapiro (2005) [13]

### Patent Holdup and Royalty Stacking

by Mark A. Lemley and Carl Shapiro (2006) [14]

### Efficient Patent Pools

by Josh Lerner and Jean Tirole (2004) [15]

### Technology standards, Patents and Antitrust

by Francois Lévesque and Yann Ménière (2007) [17]

### Licensing commitments in standard setting organization

by Francois Lévesque and Yann Ménière (2007) [18]

## Discussion forum

## SEARCH

advanced →

## BASICS & FAQs

### Bib. Resources

- Academic documents
- Law documents
- National IP Policies
- SSO Guidelines

### Cases

- Qualcomm vs Broadcomm
- Rambus

### Standards

- 3G
- WIMAX

### Jurisdictions

- European Union
- United States
- Japan

## TEACHING MATERIAL

## EVENTS

## An example

GSM mobile phone standard, introduced in 1992, included already c. essential 400 patents. Next generation standards have even more.

Patent holders in the mobile phone industry are estimated to generate billions of euros every year from patent royalties.

**NOKIA 1011**

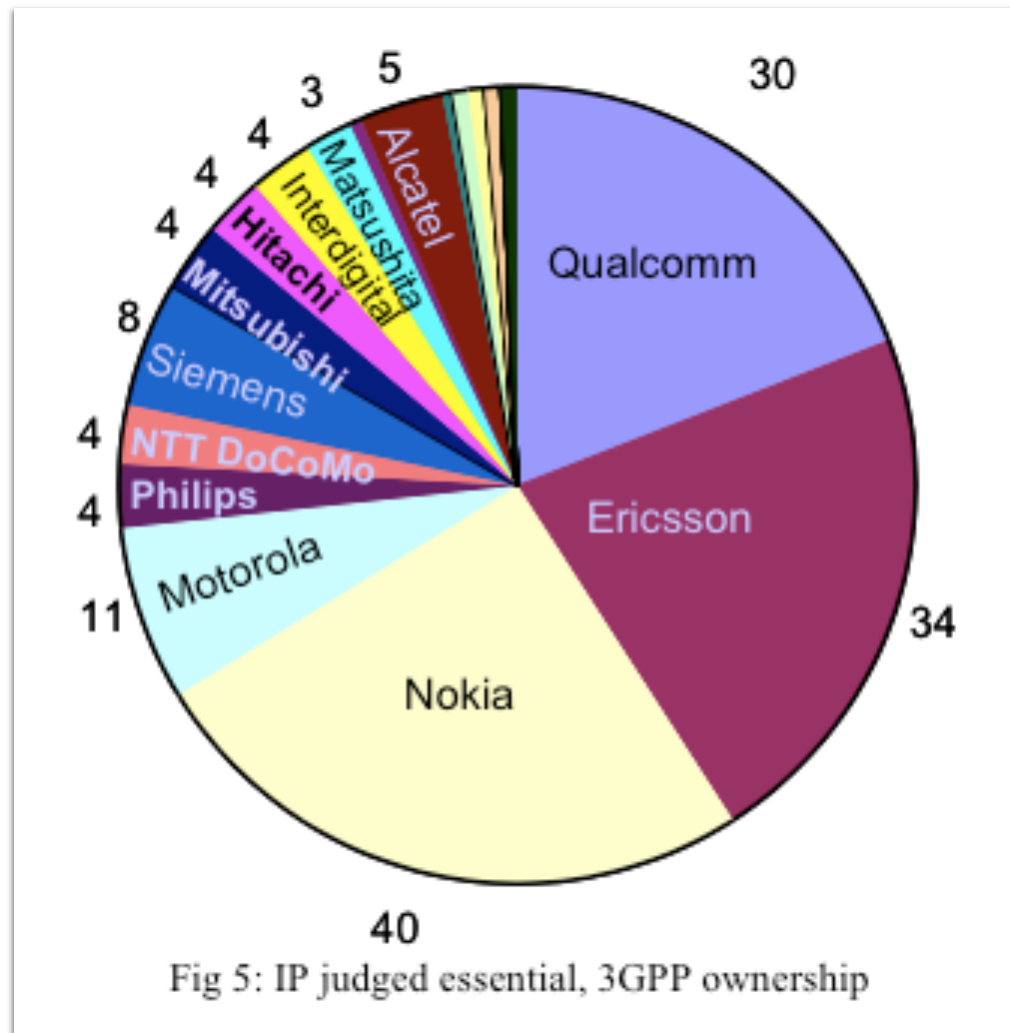
Es liegt auf der Hand: das Nokia 1011 Handy: die komplette, digitale Telefonanlage im Taschenformat. Es wiegt nur 475 Gramm, aber es bringt Sie mit ganz Europa in Verbindung - soweit die D-Netze reichen. Entdecken Sie die neue Freiheit der mobilen Kommunikation. Jetzt bei Ihrem Nokia Fachhändler. Oder direkt bei uns: Tel.: 0211/90835-00 Fax: 0211/90835-111

**Was ist klein, mobil und in ganz Europa zu Hause?**



**NOKIA**  
MOBILE PHONES

VON MENSCH ZU MENSCH



Source: Goodman and Myers (2005)

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## Legal Newsroom

### [European Commission Complaints](#)

October 1, 2007 - European Commission Applies New Policy for Reviewing Antitrust Complaints and Continues Qualcomm Investigation. | [More](#)

### [Qualcomm/Broadcom Litigation](#)

January 8, 2008 - Injunction Against Certain Qualcomm Products for the U.S. Market Provides Some Limited Licenses. | [More](#)

### [Qualcomm/Nokia Litigation](#)

March 3, 2008 - UK High Court Makes Finding of Invalidity in Qualcomm's 2G Patent Dispute with Nokia. | [More](#)

### [Korean Fair Trade Commission Complaints](#)

April 5, 2006 - Qualcomm Korea and Three Korean Companies Questioned by the Korean Fair Trade Commission. | [More](#)

### [Japan Fair Trade Commission Complaint](#)

November 9, 2006 - Japan Fair Trade Commission Notifies Qualcomm Japan of Possible Investigation. | [More](#)

## SPOTLIGHT



[Nokia's Public Position as a Licensee vs. Nokia's Position as a Licensor](#)

- Press release, November 7, 2005: “QUALCOMM Incorporated (Nasdaq: QCOM) ... filed suit on November 4 against Nokia Corporation and Nokia Inc. in federal court in San Diego for infringement of eleven of QUALCOMM’s patents... QUALCOMM’s lawsuit includes patents that are essential for the manufacture or use of equipment that complies with the GSM, GPRS and EDGE cellular standards (the GSM family of standards) and other patents that are infringed by Nokia’s products. Patents that are essential to a standard are those that must necessarily be infringed to comply with the requirements of the standard.”

- Press release, 1st October 2007. “The European Commission has decided to open formal anti-trust proceedings against Qualcomm Incorporated, a US chipset manufacturer, concerning an alleged breach of EC Treaty rules on abuse of a dominant market position (Article 82). Qualcomm is a holder of intellectual property (IP) rights in the CDMA and WCDMA standards for mobile telephone. The WCDMA standard forms part of the 3G (third generation) standard for European mobile phone technology (also referred to as "UMTS"). This follows complaints lodged with the Commission by Ericsson, Nokia, Texas Instruments, Broadcom, NEC and Panasonic, all mobile phone and/or chipsets manufacturers. The complaints allege that Qualcomm's licensing terms and conditions are not Fair, Reasonable and Non-Discriminatory ("FRAND") and, therefore, may breach EC competition rules.”

# Background

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- Standardization bodies have enacted policies that require patent holders to license essential patents with “fair, reasonable, and non-discriminatory” (FRAND or RAND) licensing terms
- How much are these “reasonable” royalties a patent holder can charge from other companies?
- For example Nokia and others obviously believe Qualcomm is charging too much; similar conflicts in other information technology standards as well

Standardization Organization	Policy	Licensing Terms	Definition of (F)RAND?	Other
ETSI	ETSI Intellectual Property Rights Policy, 29 March 2007	FRAND	No further definition	
IEEE Standards Association	IEEE-SA Standards Board Bylaws, January 2008	FRAND	No further definition	IPR holder may provide binding licensing information such as the maximum royalty rate, a sample license, or individual licensing terms
IETF	Intellectual Property Rights in IETF Technology, March 2005	RAND	If "significant implementation and successful operational experience" achieved, presumption of RAND fulfilled	IPR holder may provide licensing information
ISO / IEC / ITU	ISO/IEC/ITU common patent policy, February 2007	RAND or RF	No further definition	
OASIS	OASIS Intellectual Property Rights (IPR) Policy, 15 April 2005	FRAND or RF	No further definition	
W3C	W3C Patent Policy, 5 February 2004	RF		

# Not much guidance

- Most standardization organizations that require “reasonable” licensing terms do not define them in any detail
- A more precise definition could mean unfruitful and exhausting policy battle: recent disputes W<sub>3</sub>C (2002), IETF (2003) and Oasis (2005) where open source advocates argue for royalty-free (RF) licensing terms
- Disclosure obligations?

# Economists

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- How to calculate “reasonable” royalty?
  - $R=c+(V_1-V_2)p$ , where  $c$  is the incremental costs of licensing,  $V_1-V_2$  is the gain for selecting the best technology over the second-best, and  $p$  is the probability that the patent in question is valid (Lévêque and Ménière 2007)
  - But what if second best is not available? (essential patents)

# Some debated issues

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- Relevant issues in the assessment of “reasonableness”
  - Quality or volume of patents?
  - Early or late innovators?
  - Cumulative royalties or one-time fees?
- General problem: theory may be difficult to apply in practice

# Competition policy

- European Court of Justice: an intellectual property holder in a dominant position may not refuse to license its exclusive right for arbitrary reasons or fix prices at “unfair level” if the use of the right is consider necessary in order to follow a standard
  - Commission investigation on Qualcomm and Rambus ongoing
- In the United States, if a company breaks a “reasonable” royalty commitment made at standardization organization, this action may be enforceable under anti-trust laws

# European Microsoft case

- Microsoft did not license interoperability information to its server file systems
- Microsoft claimed they were protected by trade secrets, copyrights, and patents
- EU commission decided in 2004 that Microsoft must license this information on “reasonable and non-discriminatory terms”
- Microsoft appealed, Court of First Instance decision in 2007

“The mere fact that the contested decision requires that the conditions to which any licences are subject be reasonable and non-discriminatory does not mean that Microsoft must impose the same conditions on every undertaking seeking such licences. It is not precluded that the conditions may be adapted to the specific situation of each of those undertakings and vary, for example, according to the extent of the information to which they seek access or the type of products in which they intend to implement the information.”

Court of First Instance decision, para 811

Task	Protocol Group	Price				Minimum				Maximum			
		All IP	Patent Only – No. of patents covered	Trade Secret Only	IDL Only	All IP	Patent Only	Trade Secret Only	IDL Only	All IP	Patent Only	Trade Secret Only	IDL Only
File/ Print	CIFS	\$0	3 US (1)/1 patents										
	Base File Services	\$8/srv	\$6/srv	\$6/srv	\$3/srv	\$8/srv	\$6/srv	\$6/srv	\$3/srv	\$8/srv	\$6/srv	\$6/srv	\$3/srv
	DFS (Distributed File System)	2%	1.5% - 2US/1EU patents	1.5%	N/A	\$18/srv	\$13/srv	\$13/srv	N/A	\$422/srv	\$317/srv	\$317/srv	N/A
	FRS (File Replication Service)	1%	N/A	1%	N/A	\$9/srv	N/A	\$9/srv	N/A	\$211/srv	N/A	\$211/srv	N/A
	Print RPC	\$8/srv	N/A	\$8/srv	\$6/srv	\$8/srv	N/A	\$8/srv	\$6/srv	\$8/srv	N/A	\$8/srv	\$6/srv
	Internet Print	\$8/srv	\$6/srv – 1 US patent	\$6/srv	N/A	\$8/srv	\$6/srv	\$6/srv	N/A	\$8/srv	\$6/srv	\$6/srv	N/A
All File/Print Protocol Groups		4.5%	3.4% - 6US/2 EU patents	3.4%	1.7%	\$40/srv	\$30/srv	\$30/srv	\$15/srv	\$950/srv	\$713/srv	\$713/srv	\$356/srv
UGA	Base Authentication & Authorization	\$25/srv	\$19/srv – 3(2) US patents	\$19/srv	\$9.50/srv	\$25/srv	\$19/srv	\$19/srv	\$9.50/srv	\$25/srv	\$19/srv	\$19/srv	\$9.50/srv
	Domain Services Interaction	\$25/srv	\$19/srv – 3 US patents	\$19/srv	\$9.50/srv	\$25/srv	\$19/srv	\$19/srv	\$9.50/srv	\$25/srv	\$19/srv	\$19/srv	\$9.50/srv
	Multi-Factor Authentication & Certificate Services	1.5%	N/A	1.5%	.75%	\$8/srv	N/A	\$8/srv	\$4/srv	\$190/srv	N/A	\$190/srv	\$95/srv
	Group Policy	1.0%	N/A	1.0%	N/A	\$8/srv	N/A	\$8/srv	N/A	\$127/srv	N/A	\$127/srv	N/A
	Systems and Systems Health Management	1.0%	.75% - 1 US patent	.75%	.35%	\$8/srv	\$6/srv	\$6/srv	\$3/srv	\$127/srv	\$95/srv	\$95/srv	\$47.50 per srv
	Directory & Global Catalog Replication	6.5%	4.9% - 2(6) US/1 EU patents	4.9%	N/A	\$35/srv	\$26/srv	\$26/srv	N/A	\$823/srv	\$618/srv	\$618/srv	N/A

Task	Scenario	Price				Minimum				Maximum			
		All IP	Patent Only – No. of patents covered	Trade Secret Only	IDL Only	All IP	Patent Only	Trade Secret Only	IDL Only	All IP	Patent Only	Trade Secret Only	IDL Only
	Kerberos Group Membership Protocols*	\$0											
	Window Remote Registry Services*	\$0											
	Windows Event Logging*	\$0											
	Network Time Services*	\$0											
	Network Connection Mgmt*	\$0											
	MSDN networking protocols*	\$0											
	Remote Procedure Calls	\$0											
All UG&A Protocol Groups	7.5%	5.6% 11(11). US / 2(1) patents	5.6%	N/A	\$40/srv	\$30/srv	\$30/srv	N/A	\$950/srv	\$713/srv	\$713/srv	N/A	
	Networking Transport	\$8/srv	\$6/srv 6(2) US/1EU patents	\$6/srv	N/A	\$8/srv	\$6/srv	\$6/srv	N/A	\$8/srv	\$6/srv	\$6/srv	N/A
Combined File/Print, U&GA and Networking	8.5%	6.4%	6.4%	N/A	\$50/srv	\$38/srv	\$38/srv	N/A	\$950/srv	\$713/srv	\$713/srv	N/A	

# Implication?

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- Royalty scheme generally depends on how much rights the licensee receives
  - One license type, which does not include any patent licenses, is royalty-free satisfying the concerns of open source developers
  - “Reasonable” royalty can be thus even “free” royalty in a specific case
- European competition law has at the moment a flexible, case-by-case approach to “reasonable” patent licenses in standards

# Some future topics

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- Standardization process
  - Politics, costs, convergence of IP policies?
- Royalties, esp. the future of “royalty-free”
  - Links to ongoing litigation; rising popularity of open source licenses with royalty-free demands
- Patent enforcement
  - Implications of enforcement limits based on recent case law; potential future limitations