



ITU-T Kaleidoscope Conference Innovations in NGN

The Costs and Benefits of Separating Wireless Telephone Service From Handset Sales and Imposing Network Neutrality Obligations

Rob Frieden, Professor of Telecommunications and Law
Penn State University
102 Carnegie Building, University Park, PA USA 16802
rmf5@psu.edu

Web site : <http://www.personal.psu.edu/faculty/r/m/rmf5/>
Blog site: <http://telefrieden.blogspot.com/>



Whose Handset is It?

- The issues raised here address the balance of power over the third screen. We can “talk back” to our televisions and control where our computers take us, but we do not have anything near equivalent freedom for the wireless handset screen despite even after having paid on a two year “rent to own” basis.
- Almost 40 years ago the United States Federal Communications Commission established its *Carterfone* policy that requires all telephone companies to allow subscribers to attach any technically compatible device. Just about every nation now allows consumers to own and install wireline telephones with telephone service decoupled from the sale or lease of the handset.
- Unbundling wireless handsets from service endorses subscriber device freedom and limits service providers from imposing limitations that thwart access to content and services.
- This simple policy has saved wireline telephone consumers money, promoted innovation and stimulated more diversified and expanded network use without any financial or operational harm to network operators.
- Many nations, including the United States, do not require the unbundling of wireless handsets from service. FCC Chairman Kevin Martin recently announced his opposition to an explicit policy and instead has confidence in market-driven solutions. An invisible hand has ensured interoperability for email, but not instant messaging.
- Should wireless carrier unilaterally determine what appears on the third screen just as Microsoft assumed it could determine what appears on the first PC screen view?

Wireless Unbundling: A Long Overdue Policy Promoting Consumer Choice and Competition

In the United States, the FCC has promoted consumer freedom and economy particularly by preventing network operators from requiring equipment upgrades or replacements that subscribers do not need, because less expensive options exist. These policies include:

The right of cable television subscribers to use a CableCard to perform digital rights management and other security functions in lieu of a more costly and limiting leased set top box;

The right of wireline and wireless telephone subscribers to keep their existing telephone numbers when shifting carriers;

Cellphone carriers' obligation to continue providing analog service during a transition to complete digital service to prevent immediate, "flash cut" termination of service to older handsets. Broadcasters have a similar duty to continue providing analog service until Feb. 2009 and the federal government has established a subsidy program to enable continued use of retrofitted analog television sets; and

The right of cable television subscribers to access preferred content without having to buy undesired content tiers.

Why Do Wireless Carriers Object to Unbundling?

- Increased subscriber freedom to attach devices to wireless networks would reinforce ongoing statutory and regulatory obligations to enforce conventional telecommunications service rules on carriers that successfully have avoided the rules.
- Wireless carriers have determined that the financial benefits of locking subscribers into two year service commitments exceed the cost of subsidizing handset sales.
- Locking and limiting subsidized handsets helps carriers foreclose subscriber access to services, content and applications available from third parties that make no financial contribution to the wireless carrier and possibly compete with services offered by the carrier.

How Do Wireless Carriers Thwart Device Access Freedom?

- Locking handsets so that subscribers cannot access competitor networks (by frequency, transmission format, firmware or software); in the U.S. carriers even lock handsets designed to allow multiple carrier access by changing an easily inserted Subscriber Identity Module (“SIM”);
- Using firmware “upgrades” to “brick,” i.e., render inoperative, the handset or alternatively disable third party firmware and software;
- Disabling handset functions, e.g., bluetooth, Wi-Fi access, Internet browsers, GPS services, and email clients;
- Specifying formats for accessing memory, e.g., music, ringtones, and photos;
- Creating “walled garden” access to favored video content of affiliates and partners; and
- Using proprietary, non-standard interfaces making it difficult for third parties to develop compatible applications and content.

Third Generation Services in a Non-Neutral World

- While the FCC has reaffirmed that wireless cellphone carriers operate as telecommunications service providers, the Commission also has classified wireless broadband as an information service. The Commission wants to avoid having to decide into what category wireless third generation services fall.
- Absent a common carrier or wireless unbundling mandate the carriers have and will create walled gardens and exclusive service agreements for such services as wireless bar code access; geolocation service; credit card services; debit card access; selected content access, etc.
- Some exclusive service agreements can make economic and competitive sense, but note that the regulators have to scrutinize how vertically integrated companies, e.g., cable television ventures, jointly create and deliver while deny access or imposing costly burdens on unaffiliated operators.

Responding to Wireless Unbundling Opponents

Critics allege that *Carterfone* applied only under monopoly conditions. These critics ignore the fact that the FCC has applied *Carterfone* in instances where competition provides no remedy.

No cellphone company currently offers discounted rates to subscribers who do not trigger a handset subsidy where a subscriber already has a phone, or wants to extend service using an existing and no longer subsidized handset.

Cellular subscribers do contractually relinquish some freedom in exchange for a subsidized handset. But unbundling would provide subscribers with the option of attaching an unsubsidized handset free of any carrier imposed attachment restrictions.

Many consumers now recognize the scope of restrictions wireless operators impose in exchange for a handset subsidy. Many Apple iPhone owners risk “bricking” their handset in self help efforts to eliminate these restrictions.

Conclusions and Recommendations

The public interest requires wireless carriers to abandon subscriber handset restrictions that bundles wireless service with handset sales.

Wireless carriers remain regulated common carriers regardless whether they also provide less regulated Internet access and other information services. The duties of common carriage do not evaporate simply because wireless carriers enjoy some regulatory forbearance.

Wireless subscribers should have the right to attach any handset that complies with standards designed to protect networks from technical harm. Wireless operators should bear the burden of proving that a particular handset would cause technical harm and therefore should not receive certification.

Wireless subscribers should have the right to use their handsets to access any service, software, application and content available by subscriber imputed commands or instructions. Regulators should expressly state that wireless operators have a duty to receive, switch, route and transmit such subscriber keyed commands or instructions.

Suppliers of software, applications, services and content accessible via wireless networks should have the right to offer them to subscribers subject to a reasonable determination by wireless carriers that such access will not cause technical harm to the carriers' networks. Regulators should reserve the right to mediate and resolve disputes over technical compatibility of any software, applications, services, and ⁸ content accessible via a wireless carrier network.