

# FHH Telecom Law

Current Issues in Telecommunications Law and Regulation

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## FCC Opens Wireless Broadband Inquiry

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**A** new Wireless Broadband Access Task Force is to recommend rule changes for improving the deployment of wireless Internet service providers (WISPs). The Task Force began its work by requesting public comment on a range of WISP-related policy, regulatory, and technical issues. Its goal, following a May 19 public forum and other out-reach activities, is a report to the FCC Commissioners by next October.

The FCC's interest in WISPs parallels that in Broadband over Power Lines. Today only 20% of U.S. households have broadband access, nearly all via DSL or cable modem. Those two technologies reach only limited areas, most often where population density and household income are both high. And they do not face much competition. Many areas have only one provider, and even two may not be enough to keep prices down. (Despite the presence of two cellular telephone providers in each market, prices for mobile service dropped sharply when competition from PCS appeared.) The FCC has decided that promoting new access technologies is one way to both increase the reach of broadband Internet and to bring down its cost.

To advance that agenda, the Task Force seeks comment in the following areas, among others:

- ? Is there enough spectrum for WISPs?
- ? How do unlicensed, site licensed, and geographic licensed regimes (respectively) affect the provisioning of wireless broadband service?
- ? What regulatory incentives would foster wireless broadband development?

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## FCC Stakes Out VOIP Issues

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**T**he FCC has drawn broad outlines for addressing the regulatory status of various Voice-over-Internet-Protocol ("VOIP") services, and thus for promoting the advent of VOIP. Early signals suggest that the FCC's approach will depend on how closely VOIP services resemble ordinary telephone service. The more they do, the more likely they are to be regulated the same way.

The term VOIP can refer to a technology, a set of services, or both. As a technology, VOIP means the transmission of voice and data over the Internet using the Internet protocol ("IP"), which operates differently from the formats used for traditional wire-line and wireless telephone calls. As a service, use of the IP format is not only efficient and cost-effective, but allows voice transmissions to be bundled with new applications and services, transforming telephony into a more interactive multi-media or data-enhanced experience. The FCC is eager to promote the benefits of VOIP, but recognizes that VOIP's revolutionary technology and applications raise complex regulatory problems.

Two recent decisions by the FCC stake out positions at the regulatory extremes: all and none.

At the "all" end of the spectrum, the FCC ruled that AT&T cannot avoid paying access charges by carrying long-distance calls over its own network in IP format. Access charges are fees a long-distance carrier pays to the local telephone companies that originate and terminate a call. If AT&T carries a call from City A to City B, part of the money it bills for the call goes to the local

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### Looking Ahead





## Unlicensed Users May Get New Spectrum, New Status

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**T**he FCC proposes to open the 3650-3700 MHz band to unlicensed operations -- both fixed use, such as point-to-point wireless Internet access, and mobile applications like Wi-Fi. Because most users are presently crammed into three bands shared with microwave ovens, amateur operators, and each other, this is a welcome development.

The new band comes with two types of users already in place: 103 fixed satellite earth stations, mostly near the coasts, that downlink international, intercontinental communications, and three federal radar installations. The earth stations are grandfathered on a primary basis and so must be protected from interference, along with the radars.

Amazingly, the FCC asks whether also to allow new earth stations in the band on a "*co-primary basis with unlicensed devices*." This could mark a major shift in policy. For 70 years unlicensed devices have struggled in the muddy bottom of the spectrum food chain, being secondary even to secondary licensed operations. This proposal marks the first time the FCC has even considered giving unlicensed devices any protection from a licensed service. (The FCC once did the opposite: it permitted certain unlicensed devices to cause interfere to a service at 902-928 MHz.)

**Fixed unlicensed operation.** The proposed mechanism for preventing interference from fixed unlicensed devices is simply a requirement that fixed systems be professionally installed. The FCC would make available a list of sites that require protection and hold the installer responsible for making sure those receive no interference. Fixed installations would be barred within a keyhole-shaped exclusion zone around each earth station: 180 km along the earth station's main beam and 25 km in other directions. Additional restrictions are proposed near the Canadian and Mexican borders. Even an unlicensed device in compliance with these restrictions must reduce power or shut down if it causes actual interference.

The proposed power limit for fixed transmitters is 25 watts EIRP -- very high for unlicensed devices. (The proposal does not say whether lower-powered fixed unlicensed devices could operate closer to an earth station.) There would be no restrictions on antenna type: omnidirectional, high-gain, sectorized, scanning spot-beam, and anything else would all be permitted.

**Mobile unlicensed operation.** Non-fixed unlicensed devices would be subject to a power limit of 1 watt EIRP, lower than present EIRP limits in the 2400 and 5800 MHz unlicensed bands. To protect the earth stations, each device would need a listen-before-talk capability that monitors the earth stations' 5.85-5.925 and 6.425-6.723 GHz uplink bands. Depending on the received signal strength, taken as an estimate of proximity to the earth station, the unlicensed device could operate at full power, two levels of reduced power, or not at all. (The details are complex; interested parties should consult the Notice of Proposed Rulemaking.) The FCC acknowledges there is no correlation between uplink and downlink frequencies. A mobile device must monitor all the way across the uplink bands, and if it does detect an uplink signal, has no way to tell which downlink frequencies need protection. Moreover, uplink monitoring cannot protect the three receive-only

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*No reverses in drive to transmission standards*

## Intelligent Transportation Services Get Into Gear

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**T**he implementation of intelligent transportation services passed another milestone with the FCC's release of the service rules for the DSRC (Dedicated Short Range Communications) service. Four and half years ago, the FCC allocated 75 MHz of spectrum in the 5.9 GHz band to be used for brief communications between vehicles, emergency communications with vehicles, and communications with fixed providers of services to vehicles. The Department of Transportation envisions that all vehicles will eventually be equipped with on-board DSRC equipment capable of instantly alerting cars to impending crashes, emergency vehicle approaches, and other hazardous conditions. The band can also be used for automated payment of highway tolls, parking, and even fast food drive-thrus. Now the FCC has established the specifics of licensing the new service.



Vehicle-installed units will be licensed automatically to the user, while roadside units that provide interconnection to the network backbone will be licensed on a geographic, non-exclusive basis: areas of service for public safety licenses, and county, state, or even nationwide for others. Licensees of these roadside units will simply register each transmitter site with the FCC prior to going into service, and will be able to operate

anywhere in the band. Since some government radar operations continue, pre-coordination will be required in certain areas.

The FCC adopted a Wi-Fi-based standard to ensure interoperability of devices manufactured by different companies and operating in different parts of the country. (Lack of standardization has hampered the inter-system expansion of related services such as of automatic toll payment in the 900 MHz band.) Because the DSRC licenses are non-exclusive, the FCC established a priority framework in which a control channel would automatically assign the highest priority to safety-of-life communications, then to public safety communications, and then to other applications. All transmitters in this service must be certified by the FCC.

Over objections, the FCC permitted cell-phone-type voice communications in the spectrum. Some fear system capacity will be diverted to voice traffic during rush hour at highway choke points, such as at toll-booths, where cellular networks sometimes reach capacity. Whether this exception to the non-voice transmissions contemplated for the service will swallow the service remains to be seen.

*(Unlicensed Spectrum - continued from page 2)*

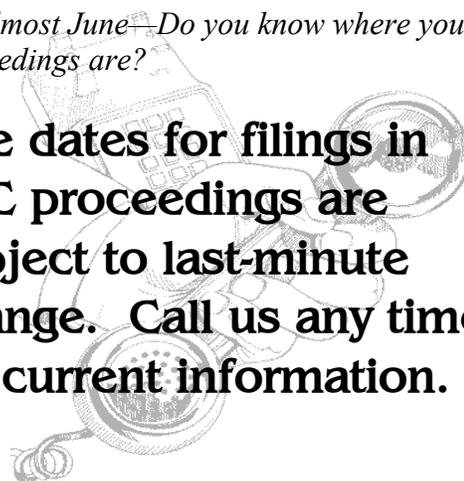
earth stations listed in the FCC database or the federal radar sites. The FCC asks for comment on some of these issues, and also on an alternative proposal that each earth station transmit a beacon signal that controls nearby unlicensed devices.

For both fixed and mobile devices, the FCC proposes a steep emissions mask to protect adjacent bands, and an identification signal to help an interference victim locate the offending device.

Comment and reply dates have not yet been established.

*It's almost June—Do you know where your proceedings are?*

**Due dates for filings in FCC proceedings are subject to last-minute change. Call us any time for current information.**





## On the FCC Auction Block

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**Three Direct Broadcast Satellite Licenses** (July 14, 2004): The FCC will begin the auction of three of the eight satellite orbital licenses that are authorized to the United States. The licenses, for systems operating at 175 degrees West Longitude and 166 degrees W.L are for 32 channels and the license at 157 degrees W.L. is for 29 channels. (EchoStar uses three of the channels.) These licenses are for locations that primarily will cover the western United States. Bidding on the 32 channel licenses will begin at \$ 3.2 million and the 157 degree W.L. license starts at \$ 5.8 million. Applications must be filed by May 21 and up-front payments must be submitted by June 18.

**24 GHz Licenses** (July 28, 2004): The FCC is making 880 licenses across the United States available for fixed digital communications applications. The licenses are for paired 40 MHz segments (80 MHz per license) and operate between 24.250 and 24.450 GHz with paired channels between 25.050 and 25.250 GHz. Opening bids, which are based upon population range from \$2500 for Aberdeen, SD to \$617,000 for New York City. Applications must be filed by June 4 and up-front payments must be submitted by June 29.

**Automated Maritime Telecommunications Systems** (September 15, 2004): Twenty licenses are up for auction to provide service in the 217-220 MHz band. The licenses are for very large areas of the United States (such as the entire Mississippi River Basin area and the Great Lakes). Much of this spectrum currently is encumbered by three operators in the nation whose operations will need to be protected by any license winner. Opening bids range from \$631,000 for the Mississippi River Area to \$4,700 for Alaska. The FCC has not yet set application and up-front payment deadlines.

**FM Radio Licenses** (November 3, 2004): Bidders will have a chance at 290 different FM radio construction permits beginning in November. The auction will be for specific licenses of designated strengths throughout the nation. Clients interested in the frequencies at auction may review them at our firm's website, [http://www.fhhlaw.com/articles\\_fm\\_auctions\\_37.asp](http://www.fhhlaw.com/articles_fm_auctions_37.asp) The FCC has yet to announce the various deadlines for the FM permits.

*After three years in the making . . .*

### New Channels in 18 GHz Band

Three years ago, the the FCC partitioned the 18 GHz band formerly shared between fixed microwave and satellite users. The parts of the band holding the narrower microwave channels ended up in the satellite allocation. That meant new and relocated narrowband licenses had to occupy wideband channels, a waste of valuable spectrum. The fixed microwave industry promptly pointed out the problem to the FCC and proposed a rechannelization plan to solve it. A year later, with the situation unchanged, the industry resubmitted its plan as part of a request for a blanket waiver. Two years later still, the FCC has now proposed to amend its rules to incorporate the rechannelization plan, and offers waivers to narrowband users while the rulemaking is underway.

*(Wireless Broadband - continued from page 1)*

? What are the barriers to entry for WISP entrepreneurs, and how can the government address them?

The Task Force welcomes comment on any issues related to WISPs, not just those raised in its questions. It emphasizes that this is not a rulemaking (although one may follow), and it does not cover regulatory treatment of particular services that may be offered over wireless broadband networks, such as VOIP. (See related article on Page 1.)

Comments in response to the Task Force inquiry are due on June 3, and reply comments on July 1.



*Court's fiat fans flames in phone fight*

## Court Hangs Up on Local Phone Rules

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**T**he financial margins in providing local phone service may be slim, but the stakes are high after the U.S. Court of Appeals for the District of Columbia struck down FCC rules governing how incumbent phone companies provide capacity to resellers of local phone service, and then stayed the result.

The overturned rules were the product of a divided FCC, with Chairman Michael Powell in the minority. Powell wants the incumbents and their competitors, including such telecom heavyweights as AT&T, MCI, and Sprint, to negotiate temporary carriage agreements so their local phone customers can continue service without interruption. This would give the Chairman breathing room to develop and build support among his fellow commissioners for new rules to replace those overturned in court. But given the acrimonious history between the incumbents who own the local networks and the resellers who want to use them, many industry watchers doubt that Chairman Powell will succeed.

As a fallback, the Chairman suggests interim rules. But any plan to impose either temporary rules or new permanent rules must win the votes of two other FCC commissioners.

The three commissioners who voted for the overturned rules want the FCC to appeal the appellate ruling to the Supreme Court. The Chairman typically makes appeal decisions on his own. But, to succeed in imposing new

rules, Chairman Powell needs the vote of at least one of the three pro-appeal Commissioners.

In the interim, all five FCC Commissioners are asking incumbent phone companies to negotiate in good faith with competitors that need the incumbent networks to serve their customers because they lack some or all the facilities required to provide local service. To facilitate these negotiations, all five Commissioners backed a successful FCC effort to "stay" or delay the court-ordered

*With a presidential election coming, a pocket-book issue like cut-rate local phone service could grab the White House's attention.*

end to the FCC's old rules. The stay leaves the old rules in place until June 15. The five Commissioners also favor a stay for themselves that would allow extra time for their own negotiations over whether the FCC will seek an appeal to the Supreme Court. But that proposal has proven more controversial among the incumbent local phone companies.

Complicating the matter, the Solicitor General's office -- under direct political control of the White House, which the FCC is not -- must decide whether to participate in any appeal. Ordinarily the Solicitor General or his deputies argue Supreme Court cases on behalf of the government. But with a presidential election coming, a pocket-book issue like cut-rate local phone service could grab the White House's attention. The Washington Post reports that "Voices for Choices," a resellers group that includes AT&T and MCI, is planning a campaign targeting presidential election battleground states, hoping to turn touch-tones into an election year touchstone.



*Broadband still on the table*

## Broader Access to Broadband?

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**T**he FCC has launched the fourth in its series of Advanced Telecommunications rulemakings to determine the status of broadband service rollout in America. Congress specifically required these proceedings, and expects a report on this one in September 2004.

With broadband service becoming more pervasive in the United States, the Notice of Inquiry raises several questions:

- ? How should the FCC define "broadband"?
- ? To what extent is broadband service available to all of America?
- ? What can be done to speed the deployment of broadband service?
- ? What are other countries' trends in broadband development?

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(VOIP - continued from page 1)

telephone companies in Cities *A* and *B*, whose facilities connect each of the people on the call to AT&T's equipment. Access charges are a major source of revenue to local telephone companies.

In the case considered by the FCC, AT&T accepted a call from City *A* in the usual manner, and paid the usual access charges to the City *A* local telephone company. AT&T converted the call to IP format and transmitted the call over its own Internet backbone to City *B*. There, AT&T converted the call back to conventional voice format and delivered it to the City *B* local telephone company. But it handed off the call over an ordinary business line, as though it were a local call from within City *B*. That meant AT&T did not pay access charges in City *B*.

Wrong, said the FCC. AT&T's offering is a "telecommunications service" subject to the full panoply of regulation. Access charges apply, regardless of IP format, to a service that (like AT&T's) meets all these tests:

-  the service uses ordinary telephones;
-  each end of the call connects through a local telephone company;
-  both ends of the call are in the same format; and
-  the use of IP protocol does not give the customers enhanced functionality.

In other words, if both ends of a VOIP call look like plain old telephone service, that is how the FCC will regulate it. AT&T's use of "IP-in-the-middle" was not enough to change the outcome.

Just a few weeks earlier, the FCC reached the opposite conclusion as applied to a very different service, pulver.com's Free World Dialup ("FWD") service. FWD is a form of "peer-to-peer" or computer-to-computer Internet telephony. Users download software that enables their personal computers to function as telephones. FWD provides no transmission service (users must subscribe to a third-party broadband service), but once on-line, FWD users are alerted when other FWD users are on-line, and the FWD software facilitates voice and data transmissions among users.

The FCC ruled that FWD is an "information service," which means FWD is not subject to the extensive regulation applicable to traditional telephone companies. The FCC also ruled that the FWD service is jurisdictionally interstate, and that bars individual states from subjecting FWD to regulations designed for telephone

companies. But the FCC emphasized that its ruling was limited to the specific facts presented by pulver, including these:

-  pulver does not charge for its service;
-  pulver provides no transmission capacity;
-  FWD does not use traditional telephone numbers for identifying or calling subscribers; and
-  FWD calls do not originate on or terminate on the traditional public telephone network.

That is, a VOIP service that looks nothing at like traditional telephone service to end users escapes all regulation.

That leaves the problem of VOIP services that have some attributes of plain old telephone service, but not all. To help find a resolution, the FCC issued a notice of proposed rulemaking inquiring more generally into the regulatory issues raised by VOIP:

- ? Should the FCC establish categories of VOIP services, based on important distinguishing characteristics? It asks commenters to propose specific grounds on which such categorization should be pursued. For example, should regulatory distinctions depend on whether a VOIP service is a substitute for or is functionally equivalent to traditional telephony, or is interconnected with the public telephone network, and/or uses traditional telephone numbers? Should distinctions be based on "phone-to-phone" vs. "computer-to-computer" vs. "computer-to-phone" criteria?
- ? On jurisdictional issues, the FCC seeks comment on whether to extend the pulver.com ruling -- that pulver's FWD is an unregulated information service subject to federal jurisdiction -- to other offerings. Are some categories of VOIP more like traditional telephony that should be subject to traditional shared interstate/intrastate jurisdiction?
- ? Seeking comment on the appropriate legal framework for various categories of VOIP services, the FCC notes the Communications Act applies substantial regulatory obligations to telecommunications services, but not to information services. It also points out that its 1998 "*Stevens Report*" to Congress suggested that a VOIP service could or should be classified as regulated "telecommunications" if it (1) holds itself out as

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## FCC Questions Equipment Certification for Non-Compliant Transmitters

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**T**he FCC has taken the rare step of issuing an Order to Show Cause against an equipment manufacturer as the first step in formally revoking an equipment certification. In 2001 the FCC granted a certification to J Communications Co., Ltd. to market a specific model of General Mobile Radio Service (GMRS) radio. GMRS service is limited by rule to short-range voice communications, with non-voice data prohibited. The FCC received a complaint -- quite possibly from a competitor of the grantee -- that the J Communications radios could transmit, in addition to voice, the user's location as determined by a built-in GPS receiver. That is unmistakably data.

In defense, the manufacturer pointed out that the instruction manual, submitted to the FCC as part of the certifi-

cation application, clearly explained the location function. But the FCC was not impressed. The application itself only asked for authority to engage in voice emissions, it said, and in any case, both the rules and the certification grant authorized only voice emissions.

*It's hard to fool your competitors, who can and do report equipment violations to the FCC.*

Equipment manufacturers can take away three lessons from the incident. First, no matter what the instruction manual says, it's the application form and certification grant that define the authorization. Second, it's hard to fool your competitors, who can and do report equipment violations to the FCC. And third, while the FCC rarely pulls out the big gun of revocation, it's a weapon that can be very costly to a manufacturer with a warehouse full of non-compliant products.

*(VOIP - continued from page 6)*

providing voice telephony or facsimile transmission service; (2) requires only an ordinary telephone; (3) allows the customer to call ordinary telephone numbers; and (4) transmits customer information without net change in form or content. The NPRM asks whether these distinctions should be altered.

? Lastly, notwithstanding legal categories, the NPRM asks whether particular regulatory requirements should be imposed on various VOIP services. Possible requirements include provision of 911 service, enhanced access for disabled people, compensation to other telecommunications providers for terminating calls, and contributions to and payments from universal service funds. A separate proceeding will consider whether VOIP services should be subject to CALEA, which generally requires telecommunications systems to accommodate law-enforcement wiretaps.

Both the pulver and AT&T decisions are subject to change by the pending rulemaking. Advocacy will be intense, given the broad impact that VOIP will likely have on traditional telecommunications economics and market structures. In the eyes of some, traditional tele-

phone technology and regulation are already obsolete. Others fear that VOIP will undercut the economics of universal telephone service. The FCC has the difficult task of preserving the best of both the old and the new.

Comments on the NPRM are due on May 28, and reply comments on June 28.



*(Broadband Access - continued from page 5)*

? What impact does the development of broadband service in America have on other countries? and

? To what extent is there still a "broadband divide" in America?

The FCC also raises several questions about the appropriate "yardsticks" to use in answering these questions. Commissioner Copps raised this issue last year, and his concerns apparently figured in the drafting of this year's Notice of Inquiry.

The proceeding is underway. Reply Comments are due on May 24.