

A regulatory thumb on the scale?



Who Should be a Designated Entity – and Why?

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In a Notice of Proposed Rulemaking (NPRM) released last fall, the [FCC has proposed numerous changes](#) to the criteria by which it grants bidding credits to preferred auction bidders, while also addressing other auction-related reforms. This is part of a cheerily and optimistically named docket called “Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions.” It is intended to address growing unrest with the confines of the Commission’s current Designated Entity rules. As we have previously reported, the FCC waived a number of its DE rules in connection with the just concluded AWS-3 auction, vowing to address the issues more broadly and permanently in a rulemaking proceeding. The NPRM focuses on several aspects of the DE designation process.

Attributable Material Relationship (AMR) Rules. The FCC adopted its current AMR rule back in 2006. This rule provides that any purported DE who leases more than 25% of any of its individual licenses to another company will be deemed to have a “material relationship” with that entity, and that material relationship will cause the DE to be attributed with the revenues of the lessee. If the lessee is not itself a DE, this attribution of revenue will likely cause the DE to lose its DE status and have to pay the significant unjust enrichment penalties due in the five years after a DE-based license is granted. In the AWS-3 context, the Commission realized that this attribution made little sense, especially when the leases did not even involve licenses that had been acquired using DE credits and where the lessee did not actually have any control over the DE.

Under the FCC’s proposal, DEs would have the same
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Effective competition – What’s that?

FCC Releases Annual Mobile Wireless Competition Report

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Asking whether there is effective competition in the mobile marketplace is much like asking “why did the chicken cross the road?” – there are infinite ways [to answer the question](#) and nobody will ever know the real answer (not even the chicken, probably). The most straightforward answer to the question is regarded as a joke but, nevertheless, the question will still be asked.

In the case of whether there is effective competition in the mobile wireless marketplace, the question is one posed by Congress to the FCC ever since 1993. The FCC is required, by law, to provide Congress with an annual report on the mobile wireless market. Specifically, the law enacted by Congress states:

The Commission shall review competitive market conditions with respect to commercial mobile services and shall include in its annual report an analysis of those conditions. Such analysis shall include an identification of the number of competitors in various commercial mobile services, **an analysis of whether or not there is effective competition**, an analysis of whether any of such competitors have a dominant share of the market for such services, and a statement of whether additional providers or classes of providers in those services would be likely to enhance competition. [The emphasis there is ours, not Congress’s.]

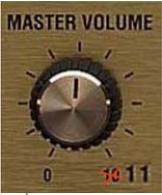
While the statute asks for a specific conclusion on whether or not there is effective competition, the FCC has, for the most part, avoided providing a straightforward answer. The [17th Annual Mobile Wireless Competition Report](#), released at the end of 2014, continues a trend from many prior reports: “[T]his *Seventeenth Report* does not reach an overall conclusion or formal finding regarding whether or not the CMRS marketplace was effective

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FCC tweaks standards

Small Boost for Signal Boosters

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Back in early 2013, the [FCC took steps to help consumers](#) deal with the dreaded cell phone phenomenon of dead spots by allowing the use of private signal boosters. (Readers should recall that boosters receive and re-transmit cell phone signals to improve coverage in their immediate vicinity.) And now, underscoring its interest in encouraging such devices, the [Commission has tweaked its rules](#). But be forewarned, the tweaks are highly technical and unless you're deeply involved in the manufacturing side of the booster universe, you shouldn't expect to notice any dramatic changes.

To recap, there are two classes of approved boosters, Consumer and Industrial. Consumer boosters, in turn, come in two flavors, Wideband Consumer Boosters (designed to boost signals of more than one cell provider) and Provider-Specific Consumer Signal Boosters (designed to boost the signals of just a single cell provider). All Consumer Boosters are subject to "Network Protection Standards" (NPS), although those standards differ somewhat between the two different types of Consumer Boosters.

Among the NPS imposed on manufacturers of Wideband Consumer Boosters was a testing requirement – involving downlink noise limits, if you really must know – which proved problematic for manufacturers. (As it turned out, neither the FCC's Office of Engineering and Technology nor most Telecommunications Certifying Bodies had the filtering equipment necessary to measure the downlink noise as required, which obviously complicated the testing process.)

So several manufacturers, noting that the downward noise testing element was not included in the NPS as a means of protecting against interference, suggested that it could be tossed. They also suggested that bidirectional capability, which was what the downward noise limit test was designed to help achieve and confirm, could be addressed in other ways (for example, by adding downlink gain limits to the Transmit Power Off Mode requirement – we warned you that the tweaks are highly technical, didn't we?).

The FCC agreed. Signal booster makers can thank Wilson Electronics, V-COMM and Wireless Extenders for getting the ball rolling on this front.

The Commission also added some requirements for *mobile* Provider-Specific Consumer Signal Boosters to provide additional protection against interference to wireless networks. In particular, mobile Provider-Specific boosters now:

- ☞ are subject to the stronger noise limits set for Wideband Consumer Boosters;
- ☞ must meet the stronger gain limits for Wideband Consumer Boosters if directly connected or using direct contact coupling; and
- ☞ may not exceed a maximum booster gain of 58 dB (for frequencies below 1 GHz) and 65 dB (for frequencies above 1 GHz) if they use an inside antenna and have both automatic gain adjustment based on isolation measurements between booster donor and server antenna and automatic feedback cancellation.

(We did mention that there would be some technical stuff going on here, didn't we? But wait – there's more!)

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FCC Imagines 10 Gb/s 5G Mobile Service Using 24+ GHz

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Engineers are never satisfied. Even when “4G” mobile service was still a new idea, the engineers had begun thinking ahead to what will eventually become 5G: 10 gigabits/second (far faster than 4G), a thousand-fold increase in traffic capacity, end-to-end delays of no more than a thousandth of a second.

The problem is to find radio frequencies for all that capacity and speed. [The prevailing belief](#) has been that mobile wireless works best only below about 3500 MHz. Higher frequencies propagate badly and do not penetrate well through building walls. Frequencies that are *much* higher, above about 24 GHz – sometimes called millimeter wave frequencies – require “line of sight” conditions: the transmitting and receiving antenna must be able to see each other. Ordinarily such a set-up by its nature precludes mobile operations.

But the folks on the FCC’s Technological Advisory Council – a group of academics and private sector technology experts that advises the government – are not content with the prevailing belief. Some argue that millimeter wave frequencies indeed can be used for mobile communications – not alone perhaps, but as a supplement to more conventional operations at lower frequencies. Making this work will take some clever engineering: antennas that change beam patterns automatically and on the fly, for example, and technologies that can overcome poor propagation by reassembling multiple reflected images of a signal, and new ideas for networks of indoor base stations. To read about more of these ideas, and contribute your own, see the [FCC’s Notice of Inquiry](#) on mobile services over 24 GHz.

The FCC may be particularly interested in bands over 24 GHz for mobile applications because past efforts to auction and license some of these for fixed use have [yielded disappointing results](#). Those of us involved with new technologies, whether as engineers, lawyers, or early-adopting consumers, owe the FCC a note of thanks for continuing to push the boundaries of spectrum use. Companies in the midst of experimenting with potential technologies obviously will benefit, as they are well-positioned to suggest technical rules for these bands. We expect the large, established wireless providers to participate as well, if only to protect their ongoing operations. And we especially look forward to hearing from the innovative startups that have traditionally driven the biggest technological revolutions.

Numerous comments on the various issues discussed in the Notice of Inquiry were filed by interested parties on

Making networks work for everyone

FCC Addresses Rural Failures to Communicate

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Acting with impressive speed (a mere nine months after issuing the underlying [Notice of Proposed Rulemaking \(NPRM\)](#)), the FCC has [adopted new rules designed to increase its ability to monitor, and correct, the “frequent and pervasive” problem of failed telephone calls](#) to small towns and rural areas. The new rules mark an important first step toward safeguarding the integrity of our nation’s telecommunications network and protecting the consumer’s right to communicate without service provider interference or intrusion. The FCC has done the right thing, giving priority to the rights of consumers to have their calls completed without interruption or degradation.

The new data collection and reporting requirements – adopted in the face of extensive lobbying by large telephone companies seeking exemptions that would have rendered the new rules useless – should provide the FCC with the tools to uphold the social compact between carriers and consumers. In the words of FCC Chairman Tom Wheeler, the Commission is looking to “make networks work for everyone.”

To whom do the new rules apply? “Covered Providers” – defined here as any provider of long distance voice service that makes the initial long distance call path choice for more than 100,000 domestic retail subscriber lines. So long as the 100,000 line threshold is met, a Covered Provider can be an ILEC, CLEC, interexchange carrier (IXC), CMRS provider, or a voice over Internet protocol (VoIP) service provider – both one-way and two-way VoIP. (Some VoIP providers argued that the FCC didn’t have the authority to impose rules on them; the Commission rejected those challenges.)

Contrary to the FCC’s original proposal, a Covered Provider can be a reseller (as opposed to the first facilities-based long distance carrier involved in the call). For example, if the first facilities-based IXC that receives a call from the calling party sends all calls to a reseller which decides how to route the call, then the *reseller* is the Covered Provider; in that example, the first facilities-based IXC would not be required to submit the reports.

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Benchmarks set, policies clarified ... thanks to T-Mobile

Wireless Bureau Provides Guidance on Data Roaming Rates

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The [Wireless Telecommunications Bureau gave the wireless industry an early Christmas gift](#) by granting T-Mobile's Petition for Declaratory Ruling regarding data roaming rates. As [we previously reported](#), back in May, [T-MO had asked the FCC to provide the industry with guidance](#) as to what a "commercially reasonable" roaming rate is. The term "commercially reasonable" was [imposed on data roaming by the FCC three years ago](#). (Readers will recall that Verizon challenged the FCC decision in court but lost, leaving the obligation to be commercially reasonable intact.) Since then, though, T-MO and many other smaller carriers have been having trouble negotiating data roaming rates with AT&T and Verizon, as the Big Two carriers have resisted terms that smaller carriers viewed as "commercially reasonable" – a negotiating tactic made possible because the precise metes and bounds of "commercial reasonableness" have never been defined. And therein lies the rub – hence T-MO's petition.

"Commercially reasonable" is a term new to the communications lexicon.

Numerous carriers, including T-MO, have been trying to negotiate data roaming rates with AT&T and Verizon, only to find that their conception of what is commercially reasonable is a lot different from AT&T and Verizon's conception. The smaller carriers have complained that the rates offered them by AT&T and Verizon have been anywhere from 8 to 100 times higher than retail rates offered by the big carriers to their own customers. Because "commercially reasonable" is a term new to the communications lexicon, there has been no easy reference point for establishing a benchmark for data roaming. (The more customary standard – applicable to common carrier rates – is that they be "just and reasonable". That standard predates the 1934 Communications Act itself, with roots in the old rate regulation scheme for railroad traffic.) So despite the court-approved existence of an obligation to offer commercially reasonable rates, data roaming rate negotiations were getting nowhere. This has gotten especially critical in recent months as companies have needed to enter into roaming agreements for LTE traffic, a form of data roaming.

In its petition T-MO asked that the FCC identify "benchmarks" for assessing "commercial reasonableness":

- ✓ whether a wholesale roaming rate offered to a retail competitor substantially exceeds the relevant retail rate;
- ✓ whether a wholesale roaming rate substantially exceeds roaming rates charged to foreign carriers when their customers roam in the U.S.;
- ✓ whether a wholesale roaming rate substantially exceeds the price for wholesale data service that a seller charges to mobile virtual network operator (MVNO) customers; and
- ✓ how the proposed wholesale roaming rate compares to other competitively negotiated wholesale roaming rates

These are similar to benchmarks proposed by other carriers in the complaint and license assignment contexts. T-MO also sought clarification that neither previously agreed-to data roaming rates nor the extent of the

requesting carrier's build-out should not necessarily be determinative of the commercial reasonableness of newly negotiated rates.

The Bureau agreed on all counts.

This does not mean that the battle for reasonable rates is over. Even with the new guidelines, there is still plenty of wiggle room to bargain, and the Big Two can exploit that wiggle room. For one thing, even though the rates offered to MVNOs and other facilities-based carriers can now theoretically inform the rate negotiation process, only the big carriers know what rates they have offered, or are actually charging, other carriers. (All rate negotiations and agreements are cloaked in a shroud of secrecy due to nondisclosure agreements imposed by the majors.) So the utility of that tool is largely blunted unless the industry generally knows what those numbers are. There is pending at the FCC a petition (filed by this author on behalf of a client) to require the public disclosure of roaming rates, both voice and data. (You can find [a copy of that petition here](#) and [links to other related pleadings here](#).) Favorable action on that petition would give teeth to the benchmarks that rely on com-

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(Rural Call Completion - Continued from page 3)

However, any originating long distance voice service providers that (a) serve more than 100,000 domestic retail subscriber lines, but (b) are not required to file quarterly reports, must still file a one-time letter with the FCC explaining that they do not make the call path choice. The letter must also identify the providers to which they hand off calls. This one-time letter must be filed with the FCC by the time Covered Providers begin to record the required call attempt data; the letter must be served on the provider identified in the letter as having the reporting obligation.

What will Covered Providers have to do when the new rules take effect? Record, and retain for six months, information about each intrastate and interstate call attempt to a rural incumbent local exchange carrier (ILEC) operating company number (OCN). The information to be recorded includes the identity of any intermediate provider to which a call is handed off, but it does *not* include information regarding call attempts to customers of non-rural ILECs, competitive local exchange carriers (CLECs), commercial mobile radio service (CMRS) providers or VoIP.

On the first day of the month that is at least 20 days after the new rules become effective, Covered Providers must begin recording the call attempt data required by the new rules. Once per calendar quarter, they must then electronically file with the FCC a report containing call attempt data for each month in that quarter. (An officer or director of the provider must certify the report's accuracy.) A template of the mandatory report showing the specific data and cause codes that must be reported is attached as Appendix C to the [FCC's Report and Order](#).

To ease the reporting burden, the FCC will itself calculate answer rates from the reported data. (The Commission had originally proposed that the reporting entities should perform those calculations.)

In addition, the FCC adopted a new rule that prohibits any audible ringing from being sent to the caller before the called party has been alerted by the terminating provider.

What safe harbors are available? In its NPRM the Commission proposed two safe harbor provisions which, if adopted, would have exempted most major Covered Providers from the new requirements. In the final rules, the FCC has significantly reduced the scope

of one of the proposed safe harbors and has rejected the other. And even carriers qualifying for the single remaining safe harbor will still be required to file quarterly reports with the FCC for one year. Covered Providers that qualify for the safe harbor are also still required to retain information regarding each call attempt to a rural ILEC OCN.

To qualify for the single safe harbor adopted by the FCC, a provider must certify on an annual basis that it either does not use any intermediate provider or that all of its contracts with intermediate providers allow a call to be handed off to no more than one additional intermediate provider. Providers of terminating tandems do not count as intermediate providers. Contracts must permit disclosure of the identity of all intermediate providers to both the FCC and the terminating LEC.

In addition to this single safe harbor, the FCC also indicated that it will consider waivers of these new rules on a case-by-case basis. A vigilant review of such waiver requests will be necessary in order to avoid undermining the new rules with widespread exemptions. In the "Further Notice of Proposed Rulemaking" (FNPRM) portion of its order, the FCC also seeks comments on whether it should adopt additional safe harbors.

The FCC will itself calculate answer rates from the reported data.

The Commission declined to adopt its original proposal that would have excluded from the data recording and reporting all call attempts to rural OCNs to which fewer than 100 call attempts were made in a single month. Had it been adopted, that exemption would have left unreported as many as 99 blocked calls to each small LEC exchange in any given month.

The FCC also declined to limit reporting to call attempts made during peak periods. Call attempt information regarding short duration calls must also be recorded and retained. In addition, Covered Providers must include auto-dialer traffic in their recording, retention, and reporting. In the FNPRM, the FCC seeks comments on whether it should require separate reports for auto-dialer traffic.

Calls to toll-free numbers and call attempts that are handed back to the upstream provider are excluded from the recording and retention requirements. The FCC also decided not to require recording and retention of post-dialing delay information.

In addition, the FCC adopted a new rule that prohibits

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(T-Mobile Roaming Petition - Continued from page 4)
 parisons with rates charged to others.

Also, the Bureau emphasized that the benchmarks it has adopted do not function as ceilings or caps for roaming rates. Rather, they are part of the overall matrix of circumstances that bear upon the commercial reasonableness of rates. A hard and fast ceiling would certainly have cut short a lot of the bickering likely to now ensue, but that might also have rendered the FCC vulnerable to the accusation of imposing the dreaded concept of Title II Regulation on a service that at least for now is not subject to such regulation. In the end, it may yet take the filing of actual complaints that consider actual circumstances to put flesh on the bones this decision has generated.

It bears observing that the Declaratory Ruling applies to everyone, including smaller carriers who charge high roaming rates and T-MO itself. To the extent that AT&T and Verizon are net payers of roaming fees – as they have described themselves to the FCC – they are presumably delighted by the ruling. And even T-MO may have to re-examine its own roaming rate structure.

In the end, though, the Declaratory Ruling must be counted as a positive, albeit imprecise and wishy-washy,

step in furthering crucial access to nationwide data roaming by all carriers.

Finally, we must observe that the Declaratory Ruling (and another order issued by the Bureau on the same day) aroused [the pique, if not the ire, of Republican Commissioners Pai and O'Reilly](#). Both of them had urged that these items be considered and voted on by the full Commission instead of being handled on “delegated authority” by the Wireless Bureau. In a sense, the Bureau’s Declaratory Ruling in the T-Mobile matter was consistent with the Bureau’s thesis underlying that Ruling, *i.e.*, that the Bureau was simply clarifying a policy adopted by the full Commission in 2011 and therefore full Commission action was not necessary. But the Repubs are being more and more vocal about being run roughshod over both by the Democratic majority and, in this case it seems, by Chairman Wheeler single-handedly. The degree of public contention and dissension on the 8th floor these days is highly unusual in a space where consensus-building has been the norm for decades. Historically, efforts were made to avoid dissenting votes, often through accommodation or compromise with Commissioners who had trouble with some portion of a draft order or policy. No more. Or so it seems from the increasing frequency of dissents by Pai and O'Reilly.



(Rural Call Completion - Continued from page 5)
 any audible ringing from being sent to the caller before the called party has been alerted by the terminating provider.

What other changes are in the works? Although most of the rural call completion problems appear to be caused by intermediate service providers, such as least cost routers, the FCC did **not** apply the new reporting obligations to intermediate providers. Instead, in the *FNPRM* portion of its latest decision, the FCC has requested comments as to whether to impose those obligations on intermediate providers. The *FNPRM* also requests comments on whether these new reporting requirements should be imposed upon rural ILECs responsible for terminating the calls that are not being properly completed. (The deadline for initial comments has passed, but reply comments may still be filed by February 18, 2015.)

What happens next? Once the required reports have been submitted for the first two years, the FCC will analyze them and release the results (although only aggregate data will be disclosed). Covered Providers will be able to ensure that their respective reports will be

kept, at least initially, confidential simply by requesting such treatment. (The Wireline Competition Bureau will issue a public notice instructing filers how to do this.) This approach is considerably more streamlined than the ordinary process for requesting confidentiality set out in [Section 0.459 of the rules](#). However, if the Commission receives a request for public release of a particular report (or decides on its own to propose such release), the reporting entity will be required to jump through the Section 0.459 hoops, which require extensive explanations justifying confidentiality.

After three years, the FCC will initiate a proceeding to determine whether the reporting requirements should remain in effect or be changed. (The FCC rejected a specific sunset date for automatic expiration of the rules.)

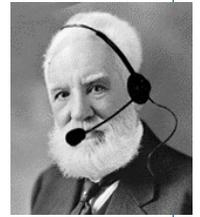
There is room for improvement to the new rules – for example, intermediate providers could be required to file reports – but the FCC’s Report and Order still marks an important step forward toward identifying, and ultimately eliminating, the sources of call completion problems plaguing rural areas.

Out for comment

Practical Questions about the IP Transition

NPRM seeks to address effects of discontinuance of copper-based services on consumers, competition

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As many readers doubtless know (and as [we have previously reported](#)), the IP transition is underway: telecom carriers are shifting away from time division multiplex (TDM) technology using traditional copper wires; instead, they are embracing Internet protocol (IP) technology using optical fiber and coaxial cable facilities. This shift will implicate a wide range of regulatory considerations which [the FCC is already looking into](#). It will also affect consumers and competitive telecommunications providers who are used to the TDM/copper wire way of life.

In a [Notice of Proposed Rulemaking and Declaratory Order](#) (NPRM/DO), the Commission has requested comments on three particular ways in which the transition will affect consumers and competitive providers.

Back-up Power. The legacy copper network is powered from the telephone company central office, where back-up generators are usually available when commercial power fails. Because consumers don't need to provide their own electricity to power their landline phones, the phones usually work during a power outage as long as the phone wires on the street haven't been knocked down. But when phone service is Internet-based and provided by cable or fiber, power does not come from the central office – meaning that, if a household relying on IP/non-copper telephone service loses power, its phones go dead unless some back-up power system is in place in the consumer's home or office.

Of course, the need for telephone service generally is highest during precisely the kinds of emergencies that cause power loss, so the Commission is looking for ways to assure the continued availability of basic phone service during emergencies. One possibility is technology which will deliver emergency power over fiber from an ethernet hub. Such technology may provide only limited power – enough, say, to support traditional voice and 911 calls but *not* sophisticated power-hungry activities like streaming video or music – but it would at least provide basic communication capability. Another possibility would be to require service providers to offer back-up systems with standardized power sources rou-

tinely available at retail outlets (think “D” cell alkaline or lithium ion batteries and the like). That approach could enable consumers to handle their own back-up needs (but do you remember to change your smoke detector batteries, and would you remember to change your phone batteries?). Since continuous 911 calling capability is a high priority, the FCC is considering minimum standards that would guarantee that phones would continue to work on backup power in the range of 8 to 24 hours.

A significant new layer of regulatory intervention could result from this rulemaking.

Impact of Copper Retirement on Consumers. The shift from TDM/copper to IP/non-copper facilities poses potential problems for consumers over and above the back-up power issue. While new IP-based services provide voice telephony that doesn't sound much different from what most of us are used to, at least some IP services don't transmit data that comes

from a fax machine or an alarm or a health-monitoring system – which, particularly in that last instance, can pose big problems for persons with disabilities.

Historically, discontinuance of service has been presumed to be permitted, which means that discontinuance can be implemented automatically unless the FCC intervenes in response to a notice filed by the carrier. The Commission is not proposing to change the requirement that the carrier notify the FCC, but it is inclined toward the view that telecom providers should be required to notify their customers as well, giving them notice both of changes to the underlying systems *and* of the way(s) that those changes may affect the services available to consumers.

“Information” is, of course, one of today's FCC watchwords (seemingly just behind “broadband” in importance), so the FCC is proposing that carriers be required to notify all of their retail consumers who would be directly affected by contemplated copper retirement. While that may look like a simple conclusion, it entails a host of details that will need to be addressed:

? What, after all, is “copper retirement”? If, instead

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(IP Transition - Continued from page 7)

of dismantling copper lines, a carrier just stops repairing them, so that an increasing number of service failures drives consumers to change to IP whether they like it or not – would that be the same thing as discontinuance?

- ? Which customers should be entitled to notice (*i.e.*, which ones can be said to be “directly affected”)? Also, the FCC suggests that notices should be required to be sent to public safety agencies and the Department of Defense as well as the FCC itself;
- ? What do customers need to be told?
- ? How and when should the notice be communicated? On the question of timing, the *NPRM* suggests 90-180 days;
- ? Should notice be given to consumers about anticipated future network changes *before* the carrier is ready to implement the changes?

And of course, the FCC wants the notices to be “neutral” with no “upselling,” please. Carriers would not only have to provide proper and timely notices but would also have to certify to the FCC that they complied with that requirement.

As a further potential means of reducing any adverse impact of copper retirement, the FCC is also considering ways in which it could promote the sale or auction of existing copper networks. That is, a carrier wishing to retire its existing copper would be incentivized, or possibly even required, to make a good faith effort to sell its copper facilities before abandoning them. The idea is that existing or new competitors might be willing to enter the market by acquiring the to-be-abandoned copper facilities. (If the FCC tries that approach, watch out for pole attachment fireworks when the attachor suddenly becomes someone that the pole owner never dealt with before.) The Commission hopes through this proceeding to gauge the interest of competitive providers and others in acquiring such facilities in this way.

Protecting Competition Through Wholesale Access. The continued availability of special access and last-mile services for competitors poses another problem. Competitive providers of both telephone and broadband services often have limited physical facilities of their own, so they lease lines on a wholesale basis from major carriers both to link their network hubs and to obtain last-mile drops to consumer locations. The transition to IP could conceivably be used to undermine such competitive providers by

leaving them without access to critical facilities. For example, copper retirement could be used as an excuse:

- ☎ to discontinue wholesale offerings that competitors need; or
- ☎ to migrate those offerings from tariffed to non-tariffed status, thus escaping layers of regulation; or
- ☎ to refuse to provide service unless the buyer commits to volume or long-term contracts that may make it difficult for the competitor to improve its network or services in the future.

While the Commission doesn’t want to impose any *new* wholesale access obligations on incumbent carriers, it likewise wants to avoid any reduction in competition. To that end, the FCC is proposing that, where a legacy service used as a wholesale input by competitive providers would be discontinued, reduced or impaired, the incumbent carrier would have to commit to making

its replacement facilities available to provide competitive providers equivalent wholesale access on equivalent rates, terms and conditions.

The FCC wants to avoid any reduction in competition.

Declaratory Order. Recognizing that a working definition of “discontinuance, reduction or impairment of service” is fundamental to this proceeding, the FCC has taken the somewhat unusual step of providing a Declaratory Order to bring that definition into focus. Whether it succeeded in doing so is not clear.

At least one carrier apparently suggested that if access to third-party services and devices is not defined by the tariff as a part of the service offering, then a shift by the carrier from copper service to some alternative that doesn’t support such third-party services or devices should not be viewed as discontinuance, reduction or impairment of service.

The Commission takes pains to reject that suggestion. According to the Declaratory Order portion of the *NPRM/DO*,

the Commission looks beyond the terms of a carrier’s tariff, and instead it applies a functional test that takes into account the totality of the circumstances from the perspective of the relevant community or part of a community, when analyzing whether a service is discontinued, reduced, or impaired under Section 214.

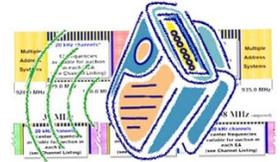
In the FCC’s view, the determination of what services are being provided to end users requires consideration of “the totality of the circumstances” – sort of like “what you

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Innovation in the works?

Is There Still a Place for Paging?

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Late on a Friday afternoon in mid-October, the Wireless Bureau issued a [curious public notice](#) reminding licensees in the Paging and Radiotelephone Services of various rules in Part 22 that they're supposed to be complying with. Following the reminder, the notice veered sharply, creating a new docket that could open the door for increased use of channels historically allotted for use by paging and radiotelephone services.

The Bureau requested comments on how to promote "more intensive" use of this Part 22 paging spectrum by its licensees. In particular, the Bureau hopes that, by increasing "technical or operational flexibility," it might encourage Part 22 paging licensees to deploy "innovative technologies" and/or narrowband equipment, or use off-set frequencies if they hold adjacent channel blocks.

It's no secret that for years the demand for paging services has declined steadily, presumably a victim of the overwhelming consumer acceptance of snazzier (and more effective) ways to contact people (for instance, cell phones and smartphones). The decline has been such that at times the FCC has struggled to get rid of remaining paging licenses. And when major bidders for those licenses have recently shown up, they appear to envision using the spectrum for various non-paging technologies, such as vehicle-to-grid, vehicular tracking or management, and smart grid and other energy management.

Over the years the Commission has taken a number of steps to encourage use of Part 22 paging spectrum: permissible operations for paging licenses have been expanded (allowing them to offer fixed, mobile, and hybrid services); burdensome common carrier regulatory treatment has been eliminated; and other technical and licensing restrictions have been lifted. The Public Notice continues in that vein.

In addition to its suggestion that Part 22 might be ready for some "updat[ing]" as indicated above, the Notice observes that technologies such as Terrestrial Trunked Radio (TETRA) – a land-mobile communication standard used worldwide by public safety organizations, military and government agencies, and transportation entities – could be used on paging channels, if some Part 22 limitations on channel bandwidth and emission were to be tweaked. Similarly, the Notice acknowledges that the use of frequency offsets could be useful in dealing with deployment of transmitters near the Canadian border – if such offsets didn't violate Part 22 rules. The implication, obviously, is that the Bureau might be willing to kiss goodbye to such limitations if the result would be increased use of the spectrum.

It remains to be seen how far the Commission is willing to go to increase use of the paging frequencies, but the Notice makes clear that movement in that direction is a distinct possibility, maybe even a likelihood.



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think you see is what you are supposed to get." And those circumstances include the "perspective of the relevant community or part of a community" that uses the services. While the Commission emphasizes that this "does not mean that every prior feature no matter how little-used or old-fashioned, must be maintained in perpetuity", it offers no clear guidelines for distinguishing (a) "little-used or old-fashioned" features that may be discontinued from (b) others that may not. Nor does it identify how large a "part of a community" must be to warrant consideration. (The Declaratory Order portion of the NPRM/DO drew strong dissents from Commissioners Pai and O'Rielly.)

We could see a significant new layer of regulatory intervention as a result of this rulemaking, but the FCC also wants to give carriers a roadmap as to what steps will lead

the agency in the direction of allowing changes more or less routinely. They are looking at these elements: no increase in price per megabit per second of service, wholesale rates not greater than retail rates, no increase in basic service pricing, no reduction in data bandwidth options, no backdoor price increases through miscellaneous charges, and no impairment of service delivery or quality.

We're going IP for sure. The question is who will get the final word on what the 21st Century network looks like, what services will be offered, and how they will be packaged and priced.

As is becoming more commonplace these days, the FCC has provided for a very short comment period, despite the major significance of the issues under consideration. Comments are due by February 5, 2015, with reply comments due by March 9.



TCBs will be taking care of business

FCC Updates Equipment Certification Rules

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The FCC lab is finally getting out of the equipment certification business. After nearly two years of deliberation, the [FCC has adopted new rules modifying its equipment certification procedures](#). Most notably, it is handing over responsibility for all equipment certification grants to Telecommunications Certification Bodies (TCBs), which currently process more than 98% of grants anyway. Otherwise the FCC's overall equipment authorization process, of which certification is a component, will continue largely as it has in the past, albeit with some important changes.

Most devices that radiate radiofrequency energy, either intentionally or unintentionally, must be tested for compliance prior to marketing in the United States. (Important distinction: the equipment authorization process relates only to the performance of the equipment itself. The goal is to assure that RF devices used in the U.S. comply with applicable FCC-imposed standards – typically power, bandwidth, modulation, out-of-band emissions, RF human exposure limits and, for wireless handsets, hearing aid compatibility. The equipment authorization process does *not* entail spectrum licensing that may be necessary for the operation of transmitters.)

Under the FCC's rules, there are three types of equipment authorization. The authorization type required for a particular piece of equipment is set in the FCC rules, determined by (a) the likelihood that that equipment will cause harmful interference and (b) the "significance of the effects of such interference". The three types of authorization are:

Certification – This, the most rigorous process for authorization, requires extensive testing of subject equipment. The new rules require testing by an accredited laboratory. (A list of accredited test labs may be found at [this link](#).) If the test results demonstrate compliance, the "responsible party" – usually the manufacturer or importer – forwards the underlying information, along with an application, to a TCB or (until now) the FCC,

which reviews the information and, if everything is in order, grants a formal certification. A TCB issuing a certification will also post the application and related materials to an FCC website.

Declaration of Conformity – This type of authorization also requires testing of the equipment by an "accredited test lab" to confirm its compliance. The results of the testing are not filed with the FCC, and the equipment is not listed in any FCC database; and

Verification – This is the most streamlined of the authorization processes. Tests may be performed by the manufacturer itself or by any test facility of the manufacturer's choosing. The test results must then be retained by the manufacturer in its internal records; they need be produced only on request from the FCC.

The FCC will no longer be issuing certifications.

Under the new rules, the FCC will no longer be issuing certifications. Instead, all applications for certification will have to be submitted to TCBs. The FCC's Office of Engineering and Technology (OET) will retain oversight of TCBs, and TCBs will have to consult with OET with respect to applications involving certain novel or complex technologies.

Many of the new rules modify how TCBs and test labs operate. The Commission has:

- 🔍 codified current OET guidance to TCBs;
- 🔍 tightened accreditation requirements (requiring accreditation for not only all certification test labs and TCBs but also any subcontractors they may use);
- 🔍 codified criteria for the laboratory accreditation bodies;
- 🔍 adopted procedures for the validation of test sites; and
- 🔍 provided for remedial action when TCBs fail to

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perform properly.

Manufacturers and importers should take note of some key changes:

TCB Dismissal of Applications: TCBs will have authority to dismiss applications for equipment certification, either because the equipment fails to meet FCC rules, the applicant doesn't comply with requests for additional information or test samples, or the applicant requests dismissal.

Post-Market Surveillance: TCBs must be accredited. Accreditation requires that TCBs follow up on their certifications by performing "post-market surveillance," which entails retesting marketed devices to ensure that they comply in the same way the testing samples did. Under the new rules, a TCB must sample, post-market, at least 5% of the device models it certifies. (That's consistent with current TCB practice.) To avoid the possibility of excess zeal by competitors, only the TCB that issued the initial certification may call in a product for post-approval re-testing. The new rules also provide that TCBs may obtain samples in several ways. TCBs can send someone to the grantee's factory or warehouse to pick units, at random, for testing. They can require a grantee to supply a voucher that the TCB can use to buy a random equipment sample at retail at no cost to the TCB. And the FCC also plans to tweak its processes to permit a TCB to request samples through the FCC's equipment authorization system. That last approach puts the FCC's clout behind the request and is expected to "improve the responsiveness" of the equipment manufacturer. In any event, the FCC will retain authority to request post-market testing.

New Measurements Procedures: To determine compliance with the relevant criteria, the FCC relies on measurement standards developed by the American National Standards Institute (ANSI). The FCC's rules historically referenced ANSI C63.4-2003, a 2003-vintage standard devised by ANSI's Accredited Standards Committee C63®. But in the intervening decade, ANSI has refined ANSI C63.4 to address unintentional radiators (such as digital devices), and has adopted (with input from the Commission) a new ANSI C63.10, for use in measuring in-

tentional radiators (transmitters) in a wide range of frequency bands. The FCC has now taken this opportunity to revise its rules to refer to the latest and greatest versions of both ANSI C63.4 (adopted in 2014) and ANSI C63.10 (adopted in 2013). This is a big issue for manufacturers because the manner in which emissions are measured can make the difference between grant or rejection. From the Commission's perspective, reliance on the most up-to-date standards should be particularly helpful in its efforts to ensure compliance by the increasingly numerous and complex universe of Part 15 devices available in the marketplace.

The rules now refer to the latest and greatest versions of relevant ANSI standards.

A potentially interesting sidenote: ANSI C63.4 includes a so-called "2 dB rule," described by the Commission as "a method used to limit the amount of testing needed by determining the worst-case configuration (e.g., number of cables required to be attached) for equipment with multiple

ports of the same type." As noted above, the current FCC rule refers to the 2003 version of ANSI C63.4. But the 2 dB rule was revised in 2009, and again in 2014, in ways that some parties felt might impose considerable burdens on test labs currently using the 2003 approach. Sensitive to that concern, the FCC will continue to accept, for the time being, the use of the 2003 method to determine compliance with Section 15.31(i) of the FCC's rules.

New OET Authority to Modify Adopted Standards: Perhaps the most controversial aspect of the FCC's action – and you can check out Commissioner O'Rielly's partial dissent if you doubt that – involves the Commission's decision to delegate new authority to OET. With few exceptions, when an FCC rule is to be revised, the revision must be adopted by the full Commission, not one of its subordinate bureaus or offices. But the FCC has now authorized OET to undertake its own rulemaking proceedings to change the rules to incorporate updates to standards already referenced in the rules (including standards that reference other undated standards). OET is *not*, however, authorized to use this authority to incorporate new standards into the rules. Nor can OET adopt modified technical standards that "raise major compliance issues". The Commission's thinking is that this new authority

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(Designated Entities - Continued from page 1)

right as any other licensee to enter into spectrum manager leases (but not *de facto* transfer leases) with other parties without necessarily being deemed to be controlled by the lessee and thus saddled with the lessee's revenues. The key here is whether the lease arrangement gives the lessee "control" over the DE as the FCC's usual metrics determine such control. While the principle involved here appears sound – DEs should have the same rights to lease their spectrum holdings as anyone else – the situation is also fraught with potential abuse. A putative DE could, for example, go into an auction with agreements to lease any spectrum acquired in the auction to a non-DE, thus reducing the putative DE to a puppet for the usually much larger lessee. The DE would effectively capture for itself the delta between the discounted rate which it has to pay for the licenses and the amount the non-DE lessee would have had to pay, all to the detriment of the US Treasury. The FCC is therefore seeking comment on whether there should be limits on when and how much spectrum should be allowed to be leased this way.

The FCC is looking at increasing spectrum diversity by using criteria other than raw business revenues.

Unjust Enrichment Period. About a decade ago, the FCC sought to extend the period in which DE-granted licenses would be subject to unjust enrichment restrictions from five years to ten. The courts ultimately rejected that attempt by the Commission, but the FCC has re-floated it here – this time presumably following the proper procedures that had been sidestepped in the earlier proceeding. The proposal is huge for DEs because it would limit their ability to alienate their licenses well down the road after their initial acquisition of the license at auction and usually after substantial service has commenced. The ten-year period certainly throws cold water on the attractiveness of DE status, but if the FCC at the same time allows unlimited leases, the problem may be ameliorated.

Revenue Thresholds for Bidding Credits. The FCC currently assigns DE credits based primarily on the gross revenues of the applicant (and its attributable affiliates) over the last three years. A 35% bidding credit is awarded for entities with no more than \$3 million in average annual revenue, a 25% credit for entities with no more than \$15 million in average

annual revenue, and a 15% credit for entities with no more than \$40 million. The FCC is proposing to raise these revenue thresholds to a level corresponding with the 36.4% increase in the GDP price index since 1997. This calculation results in an increase in the pertinent thresholds to \$4 million, \$20 million and \$55 million, respectively. While this proposal would obviously somewhat expand the number of companies eligible to get bidding credits, it's unclear that the amount of the credit (15 – 25% for most entities) is sufficient to overcome the deep pockets of non-DEs in the quest for spectrum.

New Criterion for Bidding Credits. The FCC also is looking at increasing spectrum diversity by using criteria other than raw business revenues. It will be recalled that Congress expressly directed the FCC to foster ownership of licenses by minorities and women, but the United States Constitution posed an obstacle to that effort. Now the FCC proposes to consider willingness to serve unserved or underserved areas as a basis for a credit. This would accomplish goals the FCC is indirectly addressing through the Connect America subsidy programs. Another socially sensitive idea is to make credits available to "persons who have overcome disadvantages." This is presumably an attempt to make licenses more available to women and minorities without using constitutionally barred racial and gender criteria. However, as one commenter has noted, persons who have overcome disadvantages could include ex-convicts, drug addicts, unemployed persons, the mentally ill, the mentally challenged, the unemployed – the whole gamut of people who have either created problems for themselves by misbehavior or who have innate disabilities, along with people who have been mistreated by society in some way. So while this proposal is well-meaning, it does not adequately explain why, for example, an ex-convict, is more entitled to an FCC license than someone who has not had to overcome that disadvantage.

Former Defaulter Rule. Finally, the FCC proposes to more narrowly limit the application the "former defaulter" rule. This is the rule that requires anyone who has formerly defaulted on any non-tax debt to the Federal government to pay an extra 50% in upfront payments to participate in an auction. This is

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will permit updates at a faster pace than the FCC itself has historically been capable of. In exercising this new authority, however, OET will still be subject to the dictates of the Administrative Procedure Act, which normally requires notice-and-comment rulemaking proceedings. Precisely how much time this may save is not clear, at least according to O’Rielly, who is also troubled by the “subjective and vague” nature of the “no-major-compliance-issues” standard.

Submission of Test Photographs and Dia-

grams: Under the new rules, applications for equipment certification will have to include photos or diagrams of the test set-up, showing “enough detail to confirm other information contained in the test

report”. (Photos must also clearly show the test configuration used.) These, in addition to product photos already required, will bring the certification process into conformity with the Verification and Declaration of Conformity processes.

Our advice to manufacturers: Stay in touch with your test lab and TCB. Keep an eye on updates to the [OET Knowledge Database \(KDB\)](#) as well as activities of relevant standards setting committees. Be sure to retain factory production sample devices in order to comply with any requests for samples for surveillance purposes (if a product is taken off the market, unopened samples must be retained for at least one year afterwards). And pick your TCB carefully, because it can be problematic if equipment passes initially and then subsequently fails during post-market surveillance.



(Signal Boosters - Continued from page 2)

The Commission also will apply the “antenna kitting rule” to *all* Provider-Specific Consumer Signal Boosters. Originally, that rule was applicable to *all* Wideband units but *only* mobile Provider-Specific units; from here on, it will apply to *all* consumer boosters, mobile *and* fixed. (For those new to this: “Antenna Kitting” is a requirement that manufacturers sell antennas, cables and any other type of “coupling device” along with the booster, to control for interference.)

And, in what we view as borderline labeling overkill, all fixed consumer boosters – Provider-Specific and Wideband – must now include the emphatic direction that “[t]his device may **ONLY** be operated in a fixed

location for in-building use”. And that incantation (intended to prevent, or at least discourage, interference to wireless networks) has got to be invoked not once, not twice, not thrice, but at least four (count ‘em, four) separate times: in on-line, point-of-sale marketing; in any manual or installation instructions; on the packaging; and on a label affixed to the booster itself.

In addition to all these revisions, the Commission has requested comments on whether to remove the “personal use” restriction in place for Provider-Specific Signal Boosters. Since consumers using those boosters are already required to obtain consent from carriers to operate on their frequencies, the Commission figures that the additional “personal use” provision is redundant.



(Designated Entities - Continued from page 12)

intended to deter the former defaulter from defaulting again because the FCC is holding more of its money. (Persons currently in default are, of course, barred entirely from participating in the auction.) This rule never made much sense to us and continues not to do so. The upfront auction payments are typically a small fraction of the amounts ultimately bid in auctions, so it is questionable whether they have much deterrent effect. Moreover, the former defaults were often long ago or related to small sums such as an untimely paid regulatory fee, yet they tattooed the fore-

head of the former defaulter for all eternity with the scarlet “FD.” A useless rule was thus applied to people who really were not threats to default in the future. The FCC proposes to keep the rule but limit its application to more current defaulters, those with larger default amounts, those whose defaults were not relatively quickly cured, and those whose cases have not been resolved by subsequent proceedings. The FCC, however, excludes from the latter category appeals for denial of waiver of the debt.

Comments in the Docket are due no later than February 6, 2015, with Replies due by February 26.

(Effective Competition Report - Continued from page 1)

tively competitive, but provides an analysis and description of the CMRS industry’s competitive metrics and trends.”

To be fair, as the 17th Report points out, there are indeed a lot of things to be considered, especially as the mobile wireless industry evolves and becomes ever-more complex. Moreover, the FCC also notes that apparently nobody really knows what “effective competition” is supposed to mean: “[T]here is no definition of ‘effective competition’ widely accepted by economists or competition policy authorities such as the U.S. Department of Justice (DOJ).” That’s right, folks, even the experts don’t know how to answer the question.

Of course, we can look at some of the information presented in the 17th Report and come to our own conclusions. Here are some interesting facts taken from the Report:

“The four nationwide service providers accounted for about 96 percent of the nation’s mobile wireless service revenue in 2013, up from 91.5 percent in 2012.”

“The service revenues of Verizon Wireless and AT&T accounted for about 70 percent of total service revenue in 2013.”

“MetroPCS was acquired by T-Mobile in March 2013 and Leap (Cricket) was acquired by AT&T in March of 2014.”

“Not including spectrum swaps or the major transactions...from September 2012 through June 2014 the Commission approved approximately 120 applications filed by the four nationwide providers to acquire PCS, AWS-1, Cellular, and/or 700 MHz licenses from a non-nationwide licensee – approximately 90 applications by AT&T, approximately 20 by Verizon Wireless, three by

Sprint, and seven by T-Mobile.”

“[T]he applications that were accessed by the highest percentage of smartphone users in April 2014 were email, *weather*, and social networking apps.” [Emphasis added.]

That last one doesn’t tell us much about competition, but it does lead us to believe that the groundhog’s weather prediction must’ve been off last year.

As for the other facts we’ve (selectively) extracted from the Report, we can only conclude that there continues to be consolidation at the top of the mobile wireless market in terms of both revenue and wireless spectrum. To further illustrate the point, the Report includes the chart below that breaks out market share percentages for facilities-based mobile wireless providers from 2011 to 2013.

Of course, this doesn’t reflect the further consolidation that occurred in 2014 due to Leap Wireless (Cricket) exiting the market in 2014 after being acquired by AT&T. In any case, we also can’t conclude whether there is “effective competition” in the mobile wireless market. But we can certainly observe that there are fewer competitors and the largest wireless carriers are effectively gaining market share.

Feel free to draw your own conclusions from the full 169-page Report, which is available on the [FCC’s website here](#).

Finally, we leave you with this classic variation of the chicken crossing the road question:

Q: “Why shouldn’t the chicken cross the road?”

A: “The ref would call a fowl.”

Nationwide Service Providers	2011	2012	2013
Verizon Wireless	33.8%	34.4%	36.5%
AT&T	32.4%	32.0%	32.5%
Sprint	15.6%	15.7%	15.5%
T-Mobile	10.6%	9.3%	10.9%
Total National Service Provider Market Share	92.4%	91.5%	95.3%
Regional Service Providers	2011	2012	2013
US Cellular	2.3%	2.2%	1.9%
Metro PCS	2.5%	2.5%	
Leap Wireless	1.6%	1.6%	1.4%
NTELOS	0.2%	0.2%	0.2%
Cincinnati Bell	0.1%	0.1%	0.1%
Other	0.7%	1.9%	1.0%
Total Regional Service Provider Market Share	7.6%	8.5%	4.7%

Note: Data based on Table II.C.1, *infra*, UBS Wireless 411 Report, Version 51 2014 Q1, Table 31, pp.19 UBS Wireless 411 Report, Version 54 and CTIA total service revenue figures. For 2011, the data are also from the Sixteenth Competition Report Table 11 and 12.