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April 2, 2004

Ex Parte Memorandum

Marlene H. Dortch, Secretary
Federal Communications Commission
445 – 12th Street, S.W., Room TW-A325
Washington, DC 20554

Re: In the Matter of Petition of Wireless Consumers Alliance *et al.* for a Declaratory Ruling Regarding Cellphone 911 Requirements in Response to Referral from the United States District Court for the Northern District of Illinois, dated October 3, 2003, WT Docket No. 99-328

In the Matter of Petition for Declaratory Ruling on 911 Call Processing Modes, AT&T Wireless Services, Inc., *et al.*, dated October 14, 2003, WT Docket No. 99-328

Dear Ms. Dortch:

On April 1-2, 2004, Carl B. Hilliard and the undersigned, representing the Wireless Consumers Alliance, *et al.* (collectively "WCA"), met with various persons at the Commission to discuss the above-referenced petitions for declaratory ruling filed with the Commission in response to a referral order issued by the United States District Court for the Northern District of Illinois. On April 1, 2004, the meetings were held with Commissioner Kathleen Abernathy and Senior Counsel Jennifer A. Manner, Barry J. Ohlson, Senior Legal Advisor to Commissioner Adelstein, and Samuel L. Feder and Jason Williams, Advisors to Commissioner Martin; and on April 2, 2004, with Paul Margie, Legal Advisor to Commissioner Copps. The discussions at the meetings reflected positions previously submitted by WCA in this proceeding in addition to the points reflected in the attached handouts distributed at the meetings.

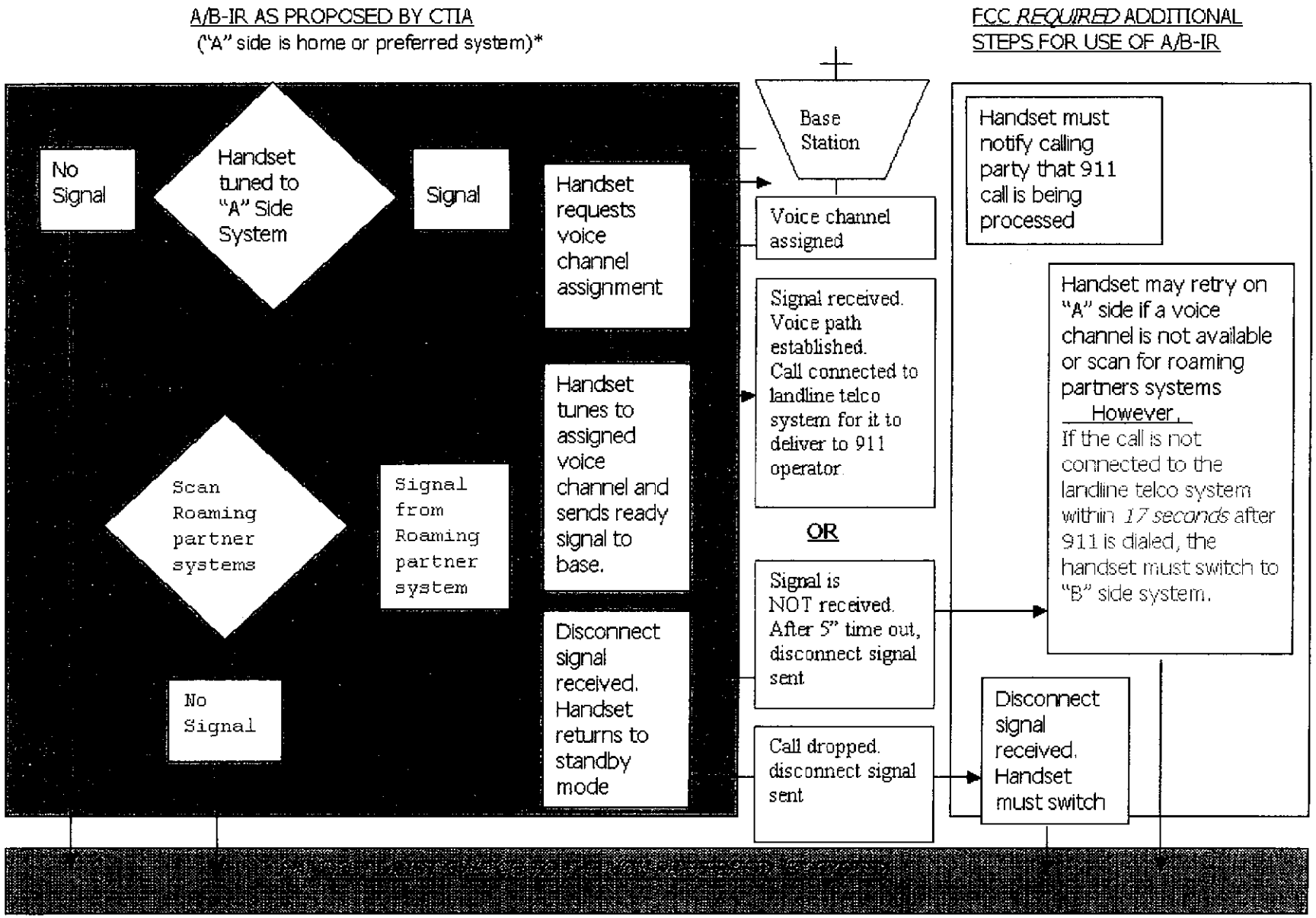
Should there be any questions concerning this matter, kindly contact the undersigned.

Very truly yours,

s/Kenneth E. Hardman
Kenneth E. Hardman

Enclosures

MANDATORY HANDSET PROCEDURE USING A/B-IR 911 DIALING METHOD



* Not shown is retry (IR) when voice channel is not available.

Background

- The FCC ruled that Wireless providers must accept all 911 calls.
- The industry responded with handset software that restricted calls to the subscriber's system.
- WCA asked the FCC for a new rule to override these software restrictions when 911 is dialed.
    - CTIA proposed A/B-IR that will override software restrictions *only* if there is no signal from the subscriber's wireless service provider ("home" or "preferred system") (shown on olive green table).
        - WCA objected to this proposal because it did not address the situation where there was a weak signal that was not strong enough to support voice conversation because the calling party re-dialing 9-1-1 would be "locked-in" to the same system where voice conversation was not possible.

The FCC conditionally approved A/B-IR and required that the handset switch to the other system if there was no signal or the voice signal was too weak for voice conversation.

- The FCC attached conditions as a pre-requisite to use of A/B-IR (shown on the gold table) to avoid lock-in. The Commission found that 17 seconds was the maximum time the handset could wait to attempt to connect the 911 call to the landline system over the preferred analog system before switching and attempting to place the call on the non-preferred system.
    - Nokia/Ericsson later asked for permission to scan for roaming partners before switching systems when there was no signal from the preferred system. WCA asked that any approval be conditioned upon this scan not exceeding the total time the FCC allowed (17 seconds) before the call was switched to the

other system. The FCC agreed with WCA. The approved change is shown on the olive green table in blue lettering.

<u>The A/B-IR dialing method as conditioned and approved by the FCC is shown on the above three colored tables.</u>

- WCA tested handsets manufactured after the effective date of the Commission's rule and found that all of the handsets tested failed to switch to the non-preferred system within 17 seconds when there was no voice path available over the preferred system.

- Manufacturers admit that the WCA test results are correct but claim that they are not required to comply with the Commission's anti-lock-in requirements (gold table) and were given permission to use the original CTIA proposed A/B –IR dialing method (olive green table) because:

    - The permission given to Nokia and Ericsson by the WTB to scan the roaming systems uses 17 seconds and nothing further is required after 17 seconds

    - It would be expensive to comply with the Commission's anti-lock-in requirements and such expense was not contemplated

    - Compliance would require a change in the standards which was not expected by the Commission.

  - The industry told the Commission both before and after the adoption of the 17 second rule that they could easily comply with the Commission's conditions without a change in standards.

    - WCA initially did not agree however, after testing, it was seen that 2 Nokia handsets did switch (albeit in 30 seconds instead of 17) so it is apparent that the manufacturers (at least Nokia) can comply.

<u>If the manufacturers cannot meet the conditions for the use of A/B-IR then that dialing method is not approved.</u>

Second Report and Order, CC Docket No. 94-102, 14 FCC Rcd 10954 (FCC 1999)

36. We do note, however, that, as proposed, Automatic A/B-IR does present some concerns. * * * Further, the algorithm treats a call as completed when the handset is in what is termed "Conversation State." However, at this stage the handset has not necessarily been connected with the wireless carrier or the 911 PSAP.

* * * * *

41. * * * In general terms, the handset should seek to complete the call with the non-preferred cellular carrier if the preferred cellular carrier has not successfully delivered the call to the landline carrier within 17 seconds after the call is placed. * * * The 17-second period is also generally consistent with the combined time periods for two basic call processing tasks that must be performed and completed ***if a call attempt is to be successful*** after the call is sent: in the first task, a handset waits up to 12 seconds to receive a voice channel assignment from a base station; in the second task, the base station waits up to 5 seconds[51] ***to receive a voice channel transmission from the handset***.[52] (Emphasis added).

[51] *See* William c. y. Lee, Mobile Cellular Telecommunications 91 (1995).

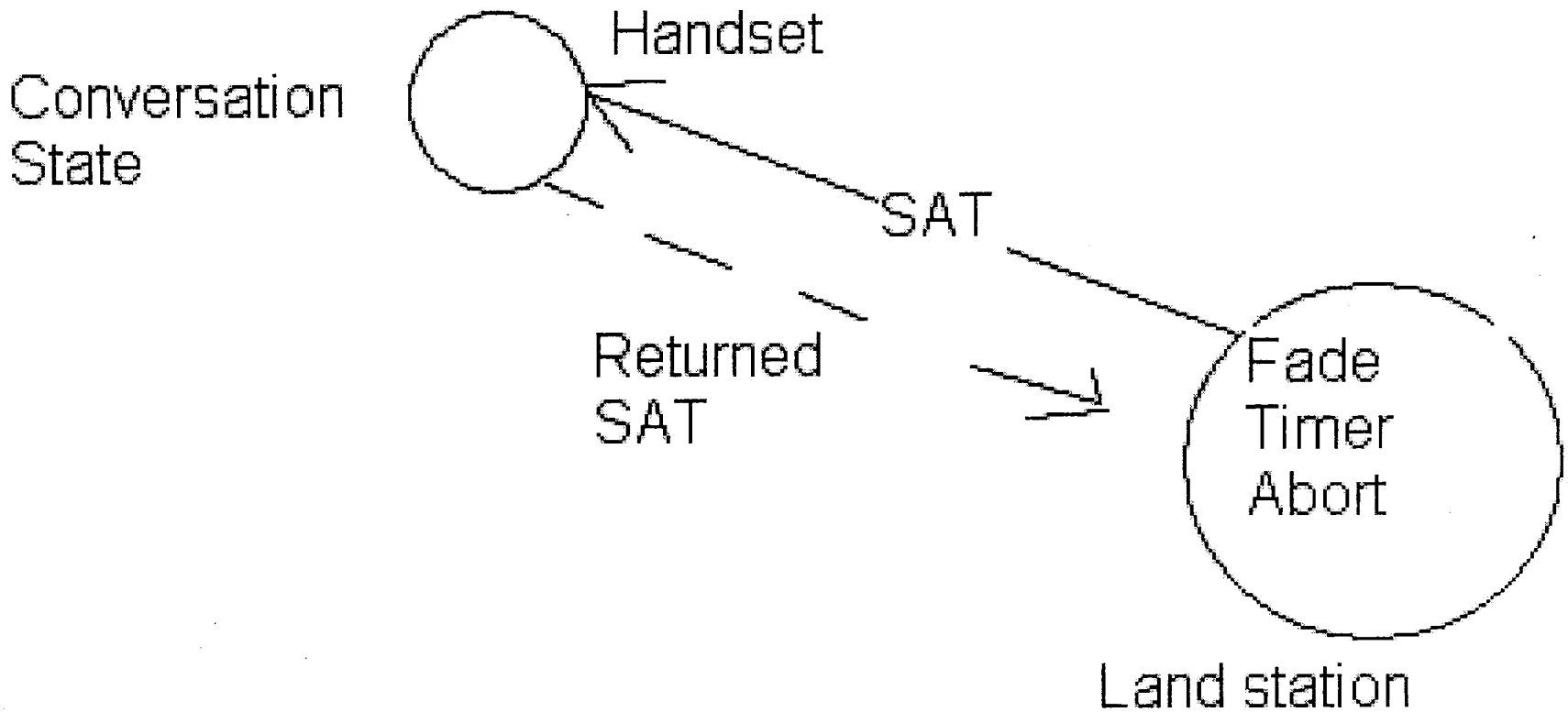
[52] After a handset receives a voice channel assignment and begins transmission to a base station on that channel, Conversation State is reached. As noted, however, at this stage, the handset's voice channel transmission has not necessarily been received at the base station, and thus the handset may not necessarily be able to use the voice channel to communicate with the base station (and thence to the landline network). In establishing a time limit for delivering the call to the landline carrier, ***we are seeking to ensure that communication between the handset and base station on the voice channel goes beyond Conversation State and reaches the point where the handset's voice channel transmission is indeed received at the base station***. * * * (Emphasis added).

- In the *Second Report and Order* the Commission defined "call completion" as a "call attempt [that] is . . . successful," *viz.*, when "communication between the handset and base station on the voice channel goes beyond Conversation State and reaches the point where the handset's voice channel transmission is indeed received at the base station."

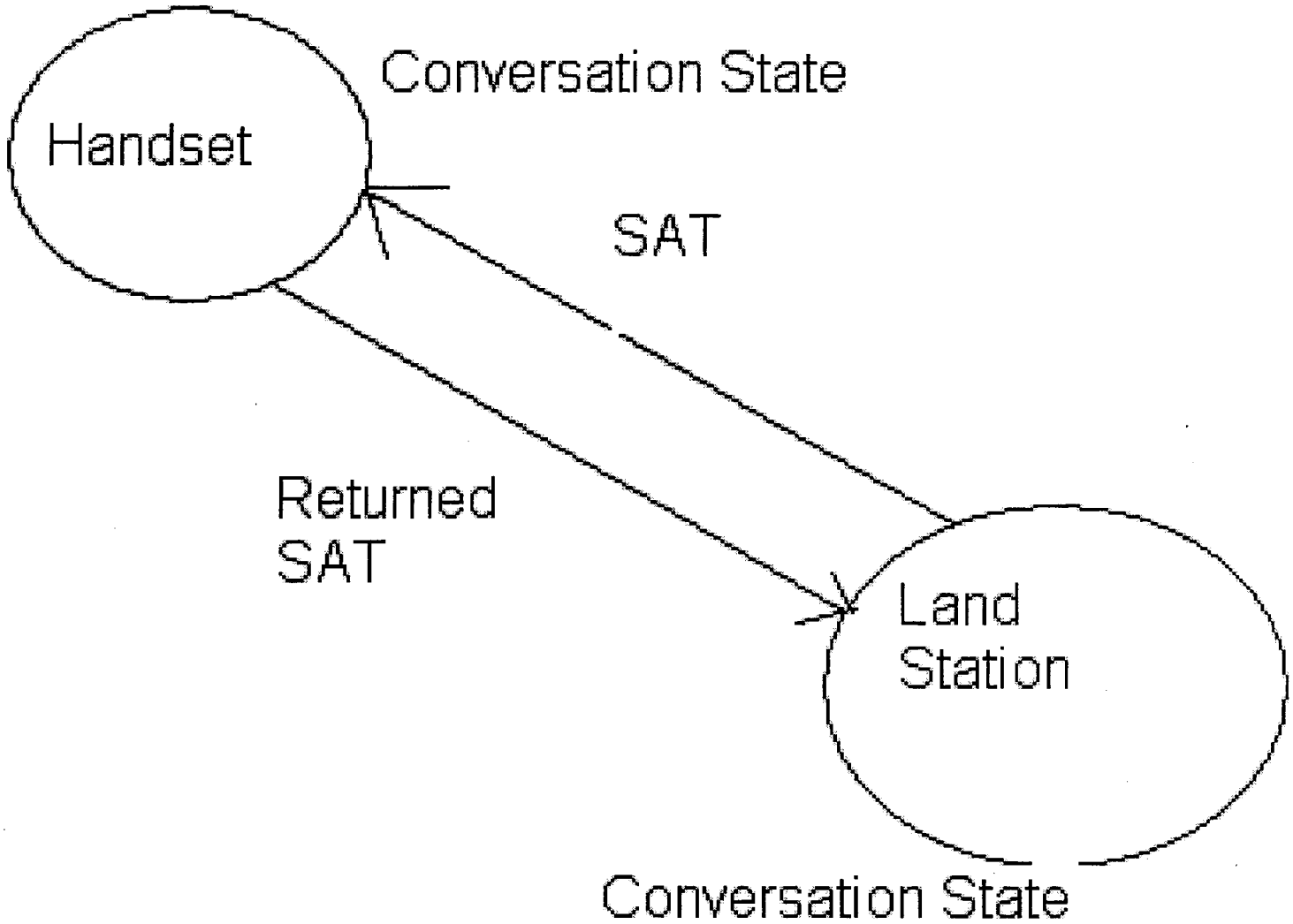
- Industry admits that it continues to cling to the pre-*Second Report and Order* definition of "call completion" as being simply when the handset reaches Conversation State. *See, e.g.*, TIA Ex Parte dated March 12, 2004 at p. 2 ("TIA, through statements filed by CTIA in the proceeding leading to the [*Second Report and Order*] consistently maintained that under TIA/EIA 553-A, the analog compatibility standard adopted by reference in the Commission's rules,* 'call completion' occurred upon the assignment of a voice channel by the base station to the handset at which time the handset entered 'conversation state.'* ***TIA at no time indicated that the standard for analog call completion would be changed with the approval of the Automatic A/B Roaming-Intelligent Retry ("A/B-IR") 911 call process***.") (Emphasis added). (*Citations omitted).

- The tests performed by Wireless Consumers Alliance in 2002 prove that the industry continues to cling to the pre-*Second Report and Order* definition of "call completion"

- In fact, the tests prove that many of the handsets ***do not comply even using industry's pre-Second Report and Order definition of "call completion"***



Cellular Lock-In Scenario



Successful Cellular Call

Industry 11/21/03 Talking Points

Wireless 911 Call Processing

- The Commission requires all wireless handsets capable of operating in the analog mode to utilize Commission-approved methods for increasing the likelihood that 911 calls are completed. The wireless industry has uniformly adopted the Automatic A/B – Intelligent Retry ("AB-IR") method approved by the Commission.

- The 911 call processing rule, Section 22.921, states that analog mode is defined by ANSI TIA/EIA-553-A-1999 "Mobile Station – Base Station Compatibility Standard." ("TIA/EIA 553A") distorts rule

- TIA/EIA 553A considers a call "complete" when the call reaches "Conversation State."

- Conversation State is defined as when a voice channel is successfully assigned to the handset by the base station.

- To ensure that a wireless handset did not continually attempt to reach Conversation State on the same, preferred or presently acquired channel, the Commission limited the time for initial access attempts to 17 seconds. not true – SBO said to go beyond conversation state

- The wireless industry universally has interpreted this 17-second period to be the time to reach Conversation State or until a voice or traffic channel is successfully assigned – in part to comply with the underlying analog standards. The Wireless Consumers Alliance ("WCA") has argued that the Commission decision required monitoring of call quality or answer supervision for successful call completion so that a handset would recognize when a 911 call had been passed through the wireline carrier. Not true – straw man!!

- Neither TIA/EIA 553A nor its companion Technical Service Bulletin (TSB 119), which implemented 911 call completion software changes, requires any call monitoring or answer supervision. In fact, the *Second Report and Order* and TSB 119 did not contemplate the extensive technical changes that would have been required to implement the changes that would have been necessitated by WCA's interpretation. true / not true

- The Commission's decision never dictated that changes to the analog compatibility standard would be required for the AB-IR method. In fact, it noted that it expected that this method to be implemented within 9 months of the Commission decision and should not require extensive standard changes. Any change to the analog compatibility standard would require more than 9 months to implement. Irrelevant

- The Commission was completely notified in the record that AB-IR would not require standards changes. If the WCA interpretation had been adopted by the Commission, it would have required extensive discussion of the standards changes and notice and comment would have been needed on such modifications. Indeed, the WCA's predecessor in the rule making specifically noted that the interpretation now advanced by the WCA would require changes to TIA/EIA 553A. Rather, the Commission never refuted nor changed the AB-IR methodology other than to require appropriate feedback to subscribers and limiting the time for initial access attempts on the preferred network. not true