

FEDERAL COMMUNICATIONS COMMISSION

FEDERAL COMMUNICATIONS COMMISSION)
)
 COMMERCIAL MOBILE SERVICE ALERT)
)
 ADVISORY COMMITTEE MEETING)

Commission Meeting Room
 Federal Communications
 Commission

445 12th Street SW
 Washington, D.C.

Thursday,
 July 18, 2007

The parties met, pursuant to the notice, at
 10:05 a.m.

MEMBERS:

KENNETH MORAN, FCC Chairman Martin's Designee

ANN ARNOLD, Texas Association of Broadcasters
 RALPH AUBRY, Battelle

RAYMOND BAN, The Weather Channel (via telephone)

DALE BARR, National Communications System, DHS

CHERYL BLUM, TIA

ANN BOBECK, National Association of Broadcasters

ART BOTTERELL, Office of Sheriff of

Contra Costa County, California

MARCIA BROOKS, WGBH National Center for Accessible
 Media

STEPHEN CARTER, Qualcomm Incorporated

EDWARD CZARNECKI, SpectraRep

BRIAN DALY, AT&T

AMAR DEOL, Nortel

ROBIN ERKILLA, Intrado

EDWARD FRITTS, Global Security Systems

CHRISTOPHER GUTTMANN-McCABE, CTIA

GARY JONES, T-Mobile

ROB KUBIK, Motorola

JOHN LAWSON, Association of Public Television
 Stations

KEVIN MCGINNIS, National Association of State
 EMS Officials (Via Telephone)

ANTHONY MELONE, Verizon Wireless

CHRISTOPHER MEYER, City of New York (Via

Heritage Reporting Corporation
 (202) 628-4888

Telephone)
RICHARD MIRGON, APCO International
ILKKA NIVA, Nokia
STEPHEN OSHINSKY, American Association of
Paging Carriers
MARK PAESE, National Oceanic & Atmospheric
Administration
BILLY PITTS, NTI Group, Inc. (via telephone)
ART PREST, Rural Cellular Association
DAVE ROBINSON, Syniverse Technologies
WILLIAM ROUTT, Sprint (via telephone)
DOUG RUTLEDGE, Alltel
PIERRE TRUONG, Ericsson

OTHER PARTICIPANTS:

LISA M. FOWLKES, Public Safety & Homeland
Security, FCC
JEFF GOLDTHORP, Public Safety & Homeland
Security, FCC
DAVID GLADDEN, Department of Homeland Security
(Via Telephone)

P R O C E E D I N G S

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(10:05 a.m.)

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MR. MORAN: Good morning, everyone. I'd like to welcome you to the fourth meeting of the Commercial Mobile Service's Alert Advisory Committee. I'm Ken Moran. I'm Deputy Chief of the Public Safety and Homeland Security Bureau at the Commission. We're now seven months into the task that Congress has given us to bring effective alerts and warnings to the millions of Americans who use mobile telephones, PDAs and other wireless devices.

12

We are less than three months away from our deadline, and there's lots to do. However, as we will see from today's presentations, the work is moving forward on schedule and issues are being worked.

16

We at the FCC continue to be impressed by the commitment and energy that so many experts from the wireless industry, public safety community, state, local, travel governments and representatives of the broadcasting industry continue to bring to this endeavor.

22

Today, each of the Advisory Committee's working groups will give us an updated report on the progress we are making for the production of a set of recommendations due in October, starting with a report

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1 by the Project Management Group on the overall
2 progress of the system's critical recommendations that
3 will be presented to the Advisory Committee in
4 October, and we are looking forward to hearing today's
5 updates.

6 I thank you all again for giving your
7 attention to this important public safety project. I
8 will be acting on behalf of the Chairman for the
9 meeting, so let us begin. I'd like to begin with
10 going around the table and having each of the
11 participants here today say your name and your
12 organization, this thing is being recorded, so
13 everyone will know who's here. So to my left?

14 MS. BOBECK: Good morning, everyone. I'm
15 Ann Bobeck from the National Association of
16 Broadcasters.

17 MR. WEBB: Good morning. I'm David Webb
18 with FEMA.

19 MR. TRUONG: Good morning. I'm Pierre
20 Truong from Ericsson.

21 MR. RUTLEDGE: Good morning. Doug Rutledge
22 from Alltel.

23 MR. ROBINSON: Dave Robinson, Syniverse
24 Technologies.

25 MR. PREST: Art Prest for the Rural Cellular

1 Association.

2 MR. PAESE: Good morning. Mark Paese with
3 NOAA.

4 MR. OSHINSKY: Stephen Oshinsky, American
5 Association of Paging Carriers.

6 MR. NIVA: Ilkka Niva, Nokia.

7 MR. MIRGON: Dick Mirgon, APCO
8 International.

9 MR. MELONE: Tony Melone, Verizon Wireless.

10 MR. LAWSON: John Lawson, Association of
11 Public Television Stations.

12 MR. KUBIK: Rob Kubik, Motorola.

13 MR. JONES: Gary Jones, T-Mobile USA.

14 MR. FRITTS: Eddie Fritts, representing
15 Global Security Systems.

16 MR. ERKKILA: Robin Erkkila representing
17 Intrado.

18 MR. DEOL: Amar Deol, representing Nortel
19 Networks.

20 MR. DALY: Brian Daly, AT&T.

21 MR. CZARNECKI: Ed Czarnecki, SpectraRep.

22 MR. CARTER: Steve Carter, Qualcomm
23 Incorporated.

24 MS. BROOKS: Marcia Brooks, WGBH National
25 Center for Accessible Media.

1 MR. BOTTERELL: Good morning. I'm Art
2 Botterell with the Office of the Sheriff of Contra
3 Costa County, California.

4 MS. BLUM: Hello. I'm Cheryl Blum, and I'm
5 here for the Telecommunications Industry Association.

6 MR. BARR: Good morning. I'm Dale Barr, DHS
7 NCS.

8 MR. AUBRY: Ralph Aubry with Batelle.

9 MR. GOLDTHORP: Good morning. Jeff
10 Goldthorp, FCC.

11 MS. FOWLKES: Good morning. Lisa Fowlkes,
12 FCC.

13 MR. MORAN: Thank you. In addition, we have
14 several people I believe on a telephone conference
15 bridge. I'll mention the people who we think are on
16 the bridge. Please acknowledge if you are there. And
17 by the way, for you on the bridge, if you wouldn't
18 mind when you're not speaking muting your telephones
19 to make the meeting easier to go here.

20 Okay. I believe Raymond Ban from The
21 Weather Channel. Are you there?

22 MR. BAN: Present.

23 MR. MORAN: Kevin McGinnis from the National
24 Association of State EMS Officials.

25 MR. MCGINNIS: I'm here.

1 MR. MORAN: Good. Billy Pitts, the NTI
2 Group?

3 MR. PITTS: Yes.

4 MR. MORAN: Christopher Meyer, City of New
5 York.

6 MR. MYER: Yes.

7 MR. MORAN: William Wertz, Michigan
8 Association of Broadcasters.

9 MR. WERTZ: Present. Good morning.

10 MR. MORAN: And David Gladden is it?

11 MR. GLADDEN: Yes.

12 MR. MORAN: With DHS?

13 MR. GLADDEN: That's right. It's for Denis
14 Gusty with DHS.

15 MR. MORAN: Okay. Thank you. And also this
16 meeting is being recorded, so any of you as we give
17 you an opportunity to speak, please say who you are so
18 the recorder will be able to get the right information
19 for the recording. Let's begin. The first report
20 would be from the Project Management Working Group,
21 Jeff Goldthorp.

22 MR. GOLDTHORP: Thank you, Ken, and good
23 morning, everybody. I'll just speak very briefly
24 about what we've been doing in the Project Management
25 Group. First of all and to get right to the bottom

1 line, we are on schedule, and we're on schedule to
2 meet our deliverable by October as planned.

3 We've been through two drafts of the
4 deliverable now. We have our third draft of the
5 deliverable coming out in August, and that will be the
6 last draft for review. After the third draft, we will
7 get down to sort of polishing the text. And the
8 fourth draft, so to speak, will be the draft that's
9 submitted to the committee for their consideration.

10 We have a Project Management Group meeting
11 this afternoon, and at that meeting, we will be
12 discussing technical issues that lie before us. And
13 the work of the Project Management Group in August and
14 July is going to be concentrating on getting the last
15 of the technical issues resolved, and I'll go through
16 each of those just very, very briefly. Each of the
17 other working group leaders will talk about them in
18 more depth when they get up.

19 I guess in order to have the slides project,
20 I'm going to have to find a way to get into
21 presentation mode, and I can't seem to find the mouse
22 or the cursor. Can you see that?

23 Oh, yes. All right. Believe it or not, I'm
24 an engineer. And I'm so used to using laptops that I
25 immediately reach for the mouse on a laptop. Thank

1 you, Greg. This is our drafting schedule. You've
2 seen this before, but you've never seen it in
3 multicolor before, and hopefully you can read this.
4 You can probably read the slides that are in front of
5 you. Everything up through June 28 is work that's
6 been completed, so we are on schedule, and as I said,
7 the second draft is out.

8 The next thing that we have to do and the
9 item that's listed as July 19 is as I said to identify
10 and to work the final technical issues that are in
11 front of us. And the remaining draft and the dates
12 for those drafts are here on the schedule, and our
13 plan is or our intention and our belief is that we
14 will meet the dates that are posted here.

15 The next steps, and as I said before, each
16 of the groups, each of the working groups will talk a
17 little about each of these things as well as other
18 things, but some of these you've heard about before.
19 Maybe one or two you haven't.

20 Battery life you've heard about before and
21 is still an open issue. We were hoping to have that
22 resolved at this meeting, but there are still some
23 questions lingering about battery life issues that
24 we'd like to nail down before we put final pen to
25 paper on that. Brian will be talking more, Brian Daly

1 that is, will be talking more about battery life
2 issues, that is, for handsets.

3 Multilingual support, there are still some
4 remaining issues surrounding that. The third item
5 here is one that you might hear more about in the
6 different talks today and one that is maybe less
7 familiar to you, and that is the CAP field mapping and
8 the Alert Gateway logic.

9 And this is a method of formulating messages
10 that PMG has agreed to and has been socialized with
11 the various working groups that would place logic and
12 algorithms for formulating the message that goes out
13 over the wireless distribution system in the Alert
14 Gateway using the CAP fields that are coming upstream
15 from the alert originator.

16 So that's a basic architectural decision
17 that's been made since the last time we met as a
18 committee, an important one and one that I think we
19 believe solves a lot of difficult problems. And
20 you'll be hearing more about that today, but it means
21 that there will be work for the Alert Gateway Group as
22 well as there's been work for the User Needs Group and
23 other groups as well.

24 Message character length, Brian will be
25 talking about that today, and I won't steal any of his

1 thunder.

2 And C interface requirements, the C
3 interface, I'll say of all the interfaces we're
4 working on, probably the most important one is the
5 interface between the part of the architecture that is
6 proposed to be administered by the government and the
7 distribution platform, which would be administered by
8 wireless carriers, so that interface is very important
9 to get nailed down in some detail. The work to
10 specify that interface needs to be completed.

11 And obviously we will continue to refine the
12 text, but I expect that that work will probably be
13 done in the last draft in August. So we will be
14 working on text refinements, but mostly now we're
15 still working substantive issues and the deliverable.
16 So, with that, I will turn it back.

17 MR. MORAN: Does anyone have any questions
18 at this point for Jeff? Any thoughts or comments?

19 (No response.)

20 MR. MORAN: Okay. Thanks, Jeff.

21 MR. GOLDTHORP: Thank you.

22 MR. MORAN: Next, Dave Webb representing the
23 Alert Interface Working Group. Dave?

24 MR. WEBB: Well, good morning, everyone.

25 And since I'm not an engineer, I had to have a lawyer

1 help me out with getting the thing going here. I'm
2 David Webb. I'm with the Alert Interface Group, and
3 I'm pleased to report to you the progress we've made
4 since inception basically.

5 The current status, we're collaborating with
6 the Alert Gateway Group on the retransmission
7 recommendations. These meetings are ongoing and
8 should be finished by the end of this month or early
9 in August.

10 Discussions on expiration time, it was a
11 rather lively e-mail exchange on if people knew where
12 they were and when alerts would expire and that kind
13 of thing. I believe we've nailed that down, and I'm
14 sure Brian will give you more depth on that, on what
15 the recommendation was.

16 We're also collaborating, and I believe the
17 meeting is this afternoon, with the AGG, the CTG and
18 the UNG on the CAP fields for building the message
19 that will go across the C interface and be distributed
20 to the wireless subscribers. From the March meeting,
21 this is the history part, CAP was recommended and
22 adopted by the PMG, so that is why we're proceeding
23 down the path that we're going down.

24 Since May, we've completed a recommendation
25 for the trust protocol that will provide

1 nonrepudiation through the system. I'll be real brief
2 here. The requirements, that all messages shall be
3 reliably attributed to an individual sender, all
4 messages will be accepted from individuals holding a
5 specified credential or from a certified system that
6 requires individual credentials. All messages must be
7 countersigned by a second credentialed sender.

8 Identity is a responsibility, and capability
9 must be recertified annually. All credentials will
10 expire in 12 months. All messages entered into the
11 system shall be logged and maintained for a reasonable
12 period of time to support an audit, also to support
13 troubleshooting and other things. Digital signatures
14 shall be bound to the message and carried from the
15 originator to the Alerting Gateway so we have a whole
16 system of nonrepudiation.

17 We've also completed our recommendations for
18 protocols A) prime, which is from the originator's
19 point, and B), which is the point in front of the
20 Alerting Gateway. And based upon the system that's
21 chosen by the engineer that puts the system together,
22 architects it and designs it, those will be published
23 and put out for the world to know. We've also
24 collaborated with the UNG for the opt-out criteria for
25 urgency, severity and certainty, and I'm sure Gary

1 will get a little deeper into that subject.

2 The message prioritization, we decided that
3 first in, first out was probably the best method. We
4 wanted to preclude anyone from trying to game the
5 system by elevating the urgency or severity to get
6 their message to the top of the queue faster, so first
7 in, first out did that. The only exception is the
8 EAN, which is a Presidential message. That will go to
9 the top of the stack to be transmitted immediately.

10 We're still working on the geotargeting
11 specifications with the CTG and the AGG as to how
12 granular the alert can be geotargeted. And we're on
13 track to give our final recommendations to the PMG in
14 August.

15 MR. MORAN: Okay. Thank you, Dave. Any
16 questions for Dave at this point?

17 (No response.)

18 MR. MORAN: Okay. Thank you. The
19 next working group to report is Tony Melone, Verizon
20 Wireless, the Alert Gateway Working Group.

21 MR. MELONE: Good morning, everyone. I'd
22 like to start just summarizing where we are since the
23 last time we met. We've submitted our second draft,
24 as Jeff mentioned, and we've really restructured our
25 input since the original draft. And at this point, it

1 is structured into eight unique sections, and what I'd
2 like to do is give you an update on each section and
3 highlight at a high level what the basic
4 recommendations are and then at the end talk about
5 what our actions are for the next 30 to 45 days.

6 So the first section is architecture, and
7 the first message I'd like to leave you with is that
8 the working group is recommending a flexible
9 architecture. We do not believe at this point in time
10 there's enough technical reasons to specify a
11 distributed architecture versus a nondistributed
12 architecture so that we're building flexibility into
13 the recommendation.

14 Now, with that said, there are a couple
15 things that we feel are very important, one of which
16 is obviously we're going to have multiple service
17 providers, and service providers may elect to have
18 multiple gateways within their network. So the Alert
19 Gateway function needs to be able to support one or
20 more service provider gateways per service provider.
21 And the second basic recommendation is georedundancy,
22 which I think is obvious to all of you and the
23 importance of that for reliability.

24 The next section talks about security
25 requirements, a couple basic assumptions. One is

1 authentication and authorization at both the B and C
2 interfaces will be provided. You've heard from David
3 about the B interface. That's within the government-
4 defined trust model. So, as a result, our working
5 group is not providing any more specificity in terms
6 of requirements at that B interface.

7 The C interface, however, will support
8 nonproprietary standards-based security. For example,
9 IPSEC and SSL are likely to be security elements
10 there, but that interface will be outside of the trust
11 model defined earlier. Gateway locations we would all
12 assume would be physically secure.

13 The next section is one of capacity and
14 performance, and let me stress here the capacity
15 recommendation here is an initial capacity. It's a
16 design capacity. To give you a feel for where we came
17 up with this, some historical data provided from NOAA
18 and throwing in some Amber Alert information suggested
19 we have roughly 8, 9,000 messages per year, alerts per
20 year. We doubled that. We then added a few more and
21 thought that 25,000 alerts per year was a safe design
22 capacity.

23 But most important, what does the Alert
24 Gateway need to handle on a per-second basis, message
25 throughput? And based on a number of other

1 assumptions, we came up with 300 messages per second
2 would be more than adequate to handle the expected
3 initial volume.

4 Now, with computing power, I'm sure you
5 would all agree we don't see that as a challenge for
6 any alert gating functionality. Quite frankly, the
7 capacity limitations on this architecture will be
8 based on what the service providers can handle as
9 opposed to what the Alert Gateway can handle.

10 So, with that said, a couple issues we see
11 as very important within the Alert Gateway. One is
12 throttling. We absolutely need capability to take
13 direction from the service provider gateway to
14 throttle messages so we don't negatively impact the
15 distribution side of the architecture. And flow
16 control is also a big part of that.

17 The second thing is buffering. Again,
18 because each service provider network will have
19 different capabilities, being able to throttle and
20 buffer uniquely based on an individual service
21 provider is important. So we'll have separate
22 buffering and throttling capabilities per service
23 provider.

24 And in order to support what David mentioned
25 earlier about the priority of Presidential alerts,

1 there will be a separate buffer for Presidential
2 alerts so that they get to the top of the list and
3 then first in, first out from there.

4 The next section talks about the interface
5 and protocols on the B interface and C interface side.
6 Again, very basic recommendations here. On both
7 interfaces, we prefer documented, nonproprietary,
8 standards-based interfaces, and I have here likely IP.
9 I think it's safe to say it will be IP initially, but
10 again, the feeling of the working group is we don't
11 need to specify that. Things can change over time.
12 As long as it's documented nonproprietary, it will
13 suffice.

14 In terms of protocol, CAP Version 1.1, an
15 XML-based protocol, has been chosen for the B
16 interface. On the C interface, the actual protocol I
17 believe was chosen. It will be XML-based, but the
18 schema, the details of the structure of that protocol,
19 is where the CTG and ourselves and others this
20 afternoon are really going to work hard to frame that
21 and really define it, and that's where most of the
22 work is left quite frankly on the C interface.

23 Next section on protocol mapping, this is
24 basically the heart in my opinion of the Alert Gateway
25 and the function it provides. It's basically

1 providing the service providers what they need so we
2 have an effective message going out to the customers
3 but at the same time not asking the alerting community
4 and the initiators to do something unique. So the
5 mapping, the intelligence, the logic-building into the
6 Alert Gateway is a key element of the group's
7 recommendation.

8 Two subsets of that. One is taking the B-
9 side CAP element components and parameters and mapping
10 it into what I'll call for the sake of argument today
11 CMAS elements, so those are the corresponding elements
12 at the C interface that are yet to be defined, and
13 having a one-to-one or one-to-many or many-to-one
14 relationship. I'm not sure exactly how that's going
15 to play out, but building that logic in.

16 The second piece is defining default values.
17 In some cases, we absolutely need values to be
18 populated. If they are not, can we come up with
19 default values as opposed to rejecting the message.
20 That's part of the work that still needs to be done.

21 And then the second major element, and
22 you'll hear more of this from Gary in User Needs, but
23 taking CAP element input parameters and actually
24 creating a text verbatim, the message that will go to
25 the customer, a 90-character or less message, a canned

1 message so to speak, and the Alert Gateway will have
2 to store that and transmit those messages to the
3 carriers. So we're basically on the receiving end of
4 that work but obviously a part of that contribution.

5 Next is the commercial mobile service
6 provider profiles. This basically defines the
7 capabilities of each of the service providers within
8 the Alert Gateway so that the Alert Gateway can tailor
9 its work to the appropriate service provider. And
10 tailoring it might mean things like throttling
11 parameters or geographic territory that's supported,
12 whether just text, text and multimedia. Those kinds
13 of unique characteristics of the service provider will
14 be part of the profile. And the profile I would say
15 is well-along in definition but still needs some
16 finalization.

17 Reporting, pretty basic online storage.
18 Here I show 30 days. There was a recommendation
19 yesterday that we probably should push that to 90 days
20 of online storage, so I suspect the final draft will
21 show 90 days for that item and archived for 36 months.
22 And then you'll have just the general system
23 performance reporting that would be available on any
24 platform such as this.

25 Performance testing. I'd like to highlight

1 three specific areas of performance testing. The
2 first is just basic connectivity between the Alert
3 Gateway and the service providers, and we expect some
4 keep alive messaging at recommended intervals to take
5 place there to ensure that connectivity is maintained
6 throughout.

7 Functional testing brings the two gateways
8 in play, the Alert Gateway and the service provider
9 gateway, and adds that functionality into the testing.
10 And there were will be recommended intervals for that
11 testing to occur, but it's important to highlight that
12 the functional testing will not go beyond the service
13 provider gateway, so it specifically will not go to
14 the end-user customers.

15 The last piece is the overall system test,
16 so here is a message that does end up going to the
17 end-user. There's still dialogue in terms of what
18 will happen there, what will be recommended.

19 From an Alert Gateway standpoint, our
20 position is whatever is decided by the overall
21 committee on that front. The Alert Gateway will treat
22 that test message as we would any other commercial
23 mobile alert message and will be passed through the
24 system in its entirety.

25 So that's a summary of where we are today.

1 Where is the bulk of the work over the next 30 to 45
2 days? As you've heard from others, there's lots of
3 work still to be done on the filtering logic and the
4 element mapping.

5 Filtering logic I'll just categorize as
6 this: Messages will come in in sequences, and updates
7 and cancellations will come in. We can't assume that
8 all those messages will be logical. In other words,
9 the severity of a message, of a cancel message, may
10 come in higher than the severity of the original
11 message.

12 If that occurs and the original message did
13 not pass the filter and therefore was not sent, but
14 the cancel message had a severity that would have
15 passed the filter, does it make sense to send that
16 along so people get a cancel of an original message
17 they never received? We think the answer to that is
18 no. So it's that type of logic that needs to be built
19 in to anticipate what may occur on the front end.

20 The next piece is the element mapping that I
21 talked about earlier, so I won't go into details, but
22 the B interface values, all the elements needs to be
23 well-understood and defined. The work that's
24 happening this afternoon on the C interface and the
25 code values and then the mapping relationship between

1 the two will take place over the next 30 to 45 days.

2 And then future deliverable dates, I think
3 Jeff highlighted these. The third draft in less than
4 a month, and then roughly 45 days from now, we'll have
5 the final draft submission, okay? Any questions on
6 anything you've heard?

7 PARTICIPANT: I have one question. A lot of
8 the messages that come from the government interface
9 have heavy use of abbreviations. Does Gateway deem it
10 appropriate to address that at all or just focus on
11 the mapping of the message?

12 MR. MELONE: If I understand your message, I
13 think the answer is yes, the Gateway team will focus
14 on that. So, by way of an example, if the code TOR is
15 used in a message to represent tornado, yes, that
16 logic will be built into the Alert Gateway so that the
17 canned verbatim that ends up going to a customer will
18 say tornado warning.

19 PARTICIPANT: Great. Thank you.

20 MR. MELONE: Yes. Anyone else?

21 (No response.)

22 MR. MORAN: Thank you, Tony. Okay. Next up
23 Brian Daly from Cingular Wireless on the
24 Communications Technology Working Group.

25 MR. DALY: Thank you and good morning. One

1 correction I'll make, it's AT&T.

2 MR. MORAN: We're going to have to take your
3 card over there I guess.

4 MR. DALY: So good morning again. I'm going
5 to give you an update on the Communication Technology
6 Group activities over the past two months or so since
7 we last had the presentation. First, I'd like to just
8 step through the issues that we were charted to
9 address as part of the Communication Technology Group
10 back in one of the first meetings in December or
11 January I believe it was.

12 The first is the recommendations for the
13 technologies. The CTG has defined service profiles,
14 which I've reported before. Text profile is being the
15 minimum requirement for the Commercial Mobile Alert
16 Service. And the message length I think as Tony just
17 mentioned is 90 characters using seven-bit coding for
18 English language text. That's the minimum requirement
19 for CMAS.

20 The goal has been to define service profiles
21 and not specific delivery technologies. There are
22 many technologies that operators have available to
23 them for delivery of the messages, whether you're
24 looking at it as a commercial mobile operator or
25 paging technologies. We're not locking into a

1 specific technology but into service profiles with
2 text being that minimum.

3 Messages are going to be delivered in the
4 order they're received, and as Tony also mentioned,
5 any prioritization or sequencing would be performed at
6 the Alert Gateway and be delivered to the operator in
7 the order in which we will deliver them.

8 Geotargeting, we're looking at a minimum
9 requirement of a county basis, although operators may
10 target smaller areas subject to their policy and any
11 delivery technology capabilities. As Dave mentioned
12 from the AIG earlier, we are looking at how to get the
13 information for geotargeting to the operators for use
14 in their processing of the targeting area for the
15 alerts.

16 Recommendations on handsets and device
17 technologies, I'll report several of those draft
18 conclusions in this briefing and the needs of non-
19 English subscribers as well as people with special
20 needs, including disabilities and elderly. We do have
21 some draft conclusions developed which I'll also
22 report in this briefing.

23 The service profiles do define text as being
24 the minimum requirement. However, we do also take
25 into account the fact that future broadband multimedia

1 networks will support streaming audio, streaming video
2 and multimedia technologies. And again, this is the
3 evolutionary path which we're accounting for in the
4 definition of service profiles.

5 In addition, we've been asked to look at the
6 development of standards to support the continued
7 evolution, and again, those recommendations will be
8 provided once we know all the technology
9 recommendations.

10 Just a quick summary of the status of where
11 we're at. We have initiated a process for drafting
12 sessions to accelerate the development of input into
13 the architecture and recommendations document which
14 Jeff mentioned in his presentation. We have held
15 monthly multiday, typically two- to three-day face-to-
16 face meetings with interim conference calls. And
17 since the report in May, we have held two of those
18 face-to-face meetings and seven multihour conference
19 calls.

20 We have been coordinating with the other
21 working groups, especially on some of the key issues,
22 meeting with the AIG, AGG and UNG, working very
23 closely together with those groups. We did provide
24 significant input into the first and second drafts of
25 the architecture and recommendations document. And we

1 are defining now the process as we're moving toward
2 the completion date of this project, how we're going
3 to get there and do a final review of the final draft
4 of the document.

5 Just some numbers and statistics, we've had
6 a number of documents that we've formally introduced
7 into the CTG. Again, I appreciate all the work of the
8 CTG members throughout this process thus far.

9 We've had 258 documents. Including
10 revisions, we're looking at over 400. We've had 25
11 liaison documents going back and forth to the other
12 groups. We've been tracking a total of about 34
13 action items to date, many of which are closed at this
14 point but still on our tracking. We've had six
15 meetings over 15 days and 25 conference calls.

16 Looking at the project timelines and
17 milestones, in July, this month, we do have meetings
18 this week in fact where we're hoping to narrow down
19 many of these issues. Many of these topics in fact
20 have been closed. The battery life conclusion we'll
21 be addressing this week. There's a lot of issues on
22 that that have been circulating, and I'll touch on
23 that on another slide.

24 The text message length we have finalized.
25 As I just mentioned, it is 90 characters as is our

1 text message length for a seven-bit encoded English
2 language. The standardized alert tone and vibration
3 cadence, we've been working with the User Needs Group
4 to identify what are the best type of alert tones or
5 vibration cadences to get the attention of the
6 subscriber on the mobile device.

7 The C reference point was mentioned earlier.
8 We'll be working with the AGG this afternoon on
9 trying to nail that down and make some conclusions on
10 what the C reference point looks like.

11 The E reference point, which is the
12 information that is actually sent to the mobile
13 device, we do have some finalized alert information.
14 We are going to be submitting draft conclusions into
15 the next draft on what information is sent to the
16 mobile device.

17 And transmission delays we'll be looking at
18 in detail to see once it's received in the service
19 provider gateway until the point when it's
20 transmitted, what do those delay characteristics look
21 like. And then finally we're looking at policies on
22 retransmission and rebroadcast for alerts, working
23 jointly with the AGG and the UNG on that.

24 The goal is to have all technical issues
25 resolved in the August meeting for final delivery of

1 all our changes into the Draft 3 of the document so
2 that in the September timeframe, we'll just be down to
3 addressing any final comments.

4 I'll talk a little bit about some of the
5 areas which we've contributed to the document and some
6 of the technical issues which we've been dealing with.
7 We have defined what we're calling scenarios. For
8 those familiar with some of the standardization
9 efforts in the industry, scenarios are really a
10 narrative description on how systems operate. They're
11 really a plain language without any real technical
12 descriptions and allows people to understand the
13 interoperability between systems or between systems
14 and end-users.

15 We've looked at scenarios for a number of
16 the commercial mobile alert cases from the nominal
17 test-based alert to cancellations, updates or
18 expirations of alerts to what happens if you receive
19 duplicate alerts or multiple different alerts
20 simultaneously.

21 This next slide, I know it's difficult to
22 read, but it just shows an example of what a scenario
23 looks like. It's usually prefaced by a text narrative
24 describing the scenario and then shows the flows from
25 various components within the network out to the end

1 user and how information flows throughout that
2 network.

3 We also do describe error cases within the
4 scenario in the text itself so that if something goes
5 wrong, we have an understanding of what point in the
6 scenario that that would need to be taken into
7 account. So the draft architecture and
8 recommendations document will contain scenarios for
9 each of the cases mentioned on the previous slide.

10 The CMSP Gateway, it's the entry point into
11 the commercial service provider for the alert. Its
12 primary function is to manage the distribution of
13 authenticated alerts across the service provider
14 network. And a service provider can have one or more
15 gateways in the CMSP network to handle what the
16 anticipated traffic levels might be. So, as this
17 picture shows, it may be on a regional basis. It's
18 totally up to the operator and the anticipated traffic
19 loads, number of subscribers, support and so forth how
20 that operator will distribute gateways.

21 Key functions of the gateway, one of the
22 main key functions is mapping of the alert area for
23 the alert message into the associated cell sites or
24 pager transceiver sites. Again, the gateway is going
25 to process the messages first in, first out cuing

1 method except for a Presidential alert, which will be
2 placed at the top of the queue. The CMSP Gateway is
3 not going to be responsible, however, for any
4 formatting, reformatting or translation of the
5 message, so we'll just take it verbatim as we receive
6 it and then pass it along.

7 The mobile devices, we've been working very
8 closely with the User Needs Group to identify key
9 requirements for the mobile devices. We want to make
10 sure the presentation of the alerts is somehow
11 distinguishable from any other type of text messages
12 that are received.

13 One of the main ways of looking at this is
14 using a standardized alert tone or vibration cadence
15 that would be somehow unique to the alerting
16 environment. We also recognize that we can't use
17 color as a required method for distinguishing alerts.
18 First off, many devices won't have color capabilities.
19 Second of all, some users may not be able to
20 distinguish various shades of color.

21 Also, we want to recognize that the vendors
22 of mobile devices as well as the service providers
23 need to have flexibility in the design and
24 implementation of the commercial mobile alerts in the
25 mobile devices. There's going to be advances in

1 mobile device technologies. There's going to be
2 advances in display technologies. There's going to be
3 evolution of mobile device capabilities in the future
4 so that we don't want to narrow the requirements on
5 the mobile devices such that we can't take advantage
6 of those advances in the future.

7 As has been mentioned several times, battery
8 life concerns is an issue that we are still
9 investigating. There are conflicting reports in the
10 industry on the impact of battery life to technologies
11 such as cell broadcast.

12 We're going to further discuss this issue
13 this week. We do have some input from mobile device
14 vendors. We've been looking at case studies, various
15 reports out of some standards organizations such as
16 the European Telecommunications Standards Institute
17 and 3GPP. There's also been a recent university
18 thesis that's been circulated through the ITU that
19 we've taken a look at.

20 But I think the bottom line is that there
21 are conflicting reports. None of these really are
22 conclusive one way or the other, and we're just trying
23 to get down to what the recommendation might be, and
24 hopefully at the end of this week's meeting, we'll
25 have a better feel for that.

1 Multilanguage support, we have made
2 provision within the architecture to support
3 multilanguages. Protocols at the C and E reference
4 point are going to be designed to support
5 multilanguages. The service profiles, as I mentioned,
6 the text profile being the minimum requirement, will
7 also be able to support multiple languages.

8 One thing we recognize today is that alert
9 initiation with the existing alert systems in
10 languages other than English is very limited to date.
11 We are recommending that a national plan for multiple
12 languages be developed by the government before a
13 commercial mobile service provider will be able to
14 support multiple languages.

15 We are also asking that the message be
16 delivered to the service provider in the language that
17 it is to be delivered in. That is, we at the
18 commercial service provider network or the mobile
19 device shouldn't have the responsibility for any
20 language translation, so the message should be
21 delivered in the language or languages that it's to be
22 delivered.

23 We also are recommending that the service
24 providers can choose to transmit alerts in languages
25 other than English based on several complexities,

1 which we've noted and I highlighted in the
2 presentation in May. Different devices will have
3 different capabilities. Different technologies for
4 delivery of the messages will have different
5 capabilities. Service provider policy will come into
6 play. We need to have a more complete understanding
7 of the alert rates and characteristics.

8 As I reported in the May meeting, the more
9 languages you add, it's like a pie. The more pieces
10 of that pie you're going to divide up, each language
11 is going to take another piece of that pie. And also
12 we need that definition of the national plan for
13 support of multilanguages.

14 Future capabilities as I mentioned, the
15 streaming audio, streaming video and multimedia are
16 optional future capabilities that are going to be seen
17 as more of the multimedia broadband capabilities are
18 available in the mobile network.

19 We do recommend that the architecture and
20 requirements document that is being developed be
21 treated as a living document with periodic updates to
22 account for both service provider experiences with the
23 initial deployments as well as experiences with new
24 technologies and their applicability to the commercial
25 mobile alert service.

1 We do recommend an industry technology group
2 consisting of government and industry stakeholders be
3 created after the Advisory Committee's activity is
4 complete to review and update the architecture and
5 recommendations document on a periodic basis and to
6 focus in on those new technology capabilities as they
7 become available, and we recommend that that review
8 should occur no less than bi-annually.

9 So, in summary, I believe the CTG is on
10 track for resolving all technical issues and provide
11 recommendations to the Project Management Group by
12 August 2007, which is that Draft 3 timeline. So, at
13 this point, thank you, and I'll be open to questions.

14 MR. MORAN: Okay. Thank you, Brian. The
15 final working group, the User Needs Working Group,
16 Gary, Gary Jones.

17 MR. JONES: Okay. Where's the lawyer to
18 help me?

19 Good morning. The User Needs Group met all
20 day yesterday, so what I'm going to present to you is
21 going to be slightly different than what the slides
22 reflect, but hopefully I'll be able to explain the
23 work that we did yesterday.

24 There are some areas that the User Needs
25 Group has pretty much identified the recommendations

1 that it would like to make to the group and have
2 submitted those to the Project Management Group. One
3 of those is the recommendations under which electing
4 service providers would offer subscribers the
5 capability of opting out of emergency alerts or
6 classes of alerts. We had originally characterized
7 these in the way the slide shows that we recommend the
8 capability of opting out of all but the Presidential-
9 level messages, all but the most extreme event
10 warnings and Amber Alerts.

11 However, in some subsequent discussions, we
12 didn't think that that was clear enough, so we have
13 revised this a little bit. And we hope you understand
14 that what we're doing is giving recommendations to the
15 carriers and the vendors on how the opt-out process
16 selection should work, not how it's presented to the
17 end-user.

18 As the last major bullet there says, the
19 actual implementation of how these choices are
20 presented on the mobile device should be left up to
21 the individual carrier and their vendors so that it
22 can be tailored to particular devices, particular
23 manufacturers or particular policies of the carriers.

24 But the recommendation to the industry is
25 that the capability of opting out of all messages be

1 the first level, with the understanding that all
2 messages does not include the Presidential-level
3 message. That's always transmitted. But to the user,
4 he ought to be able to say I don't want any of the
5 rest of the messages.

6 The second level of opting out would be to
7 able to opt out of all severe messages, and I'd like
8 to explain this just a little bit. As was alluded to
9 earlier, there are three fields in the CAP message
10 that we're going to look at to allow for this opt-out
11 capability, and those fields are the urgency, severity
12 and certainty fields.

13 Now there are various values associated with
14 each of those fields. We have chosen very early on
15 and made the decision as a group that the commercial
16 mobile alerts will transmit only the most urgent types
17 of alerts, and we classified that or defined that as
18 having an urgency of either immediate or likely,
19 having a severity of extreme or severe and having a
20 certainty of observed or expected.

21 So we can subdivide those into the most
22 urgent, most extreme warnings by saying the messages
23 that are classified as an immediate urgency, an
24 extreme severity and observed certainty, so it's
25 really bad, somebody's observed it happening, and it's

1 going to hit you pretty much immediately. That's the
2 most extreme messages. So our thinking is there may
3 be some people who want to be able to receive those
4 messages, but not others.

5 So the second level of being able to opt out
6 is to opt out of all the less extreme messages. So he
7 would receive the most extreme messages, the
8 Presidential-level messages and the Amber Alerts. And
9 then the third level of being able to opt out would be
10 for Amber Alerts. That will be reflected in a new
11 change request that will come in for Version 3, and we
12 hope that that explains a little bit better to the
13 industry the view of the opt-out capabilities.

14 All right. Other issues that we've
15 addressed, if you recall the last meeting that we had,
16 we had worked on requirements and recommendations for
17 individuals with special needs, and we did that as a
18 gap analysis by a consumer audience looking at the
19 various types of users with special needs. However,
20 when we did that gap analysis, we found that the
21 recommendations and the requirements really applied to
22 all users, not just users of special needs.

23 So we took the approach of doing the
24 recommendations at the device level rather than by
25 user groups, so we've come up with a list of

1 recommendations and they're presented here that
2 present the most important information first, and I'll
3 show you how we reflect that in just a few minutes,
4 keep the language simple, avoid abbreviations, provide
5 a speech version.

6 Providers, service providers, are encouraged
7 to provide text-to-speech capability in some handsets;
8 provide unique vibratory as well as a unique multitone
9 audio attention signal, and as you heard from Brian,
10 we're working on that jointly together, jointly now;
11 don't require multiple keystrokes to dismiss or save
12 the message, rather use a very intuitive end or
13 similar command; and to investigate how the Advisory
14 Committee can help facilitate alternate delivery
15 mechanisms for small populations to be able to sign up
16 to perhaps third-party alternate format message
17 delivery.

18 That's for special groups with special
19 needs. Those needs may be satisfied by third-party
20 service providers. They still need to be able to get
21 the same kind of alert message that we transmit over
22 our system to all the other users, so we're urging the
23 Advisory Committee to help facilitate that. It may be
24 nothing more than making the Alert Gateway
25 functionality available to these other third parties.

1 So far we worked on requirements that are
2 for the text profile. However, as you heard from
3 Brian, there are other profiles that are future-
4 looking. So we are in the process of looking at
5 perhaps requirements and recommendations for those
6 additional future formats.

7 One of the principal tasks of the User Needs
8 Group has been to develop recommendations on the
9 consumer notification, that is, the text that we
10 recommend carriers use who are both electing not to
11 transmit emergency alerts and carriers who are
12 electing to transmit emergency alerts in part, and we
13 define that "in part" as being in part of their
14 network or on part of their handset offering, which
15 may very well be the likelihood as carriers begin to
16 implement service.

17 So the first one is the notice for the
18 carrier who in hold does not intend to transmit
19 emergency alerts. We had a lot of good help on this
20 from not only the User Needs Group, we had input from
21 other groups. We had input from CTIA that was very
22 valuable. And we tried to keep it as simple as we
23 could but still express the message, so in this case,
24 we recommend the text be that this wireless provider
25 presently does not transmit wireless emergency alerts,

1 and then we propose to cite the FCC rule that requires
2 this notification.

3 All right. We'll go on to the next one.
4 This was a little more detailed. This is for a notice
5 for carriers who intend to transmit emergency alerts
6 in part, and as I said before, we define that as
7 transmitting over a part of his network or in a
8 portion of his handset offering. So the text says,
9 "The wireless provider has chosen to offer wireless
10 emergency alerts within portions of its service area
11 as defined by the terms and conditions of its service
12 agreement on wireless emergency alert capable devices.

13 "There is no additional charge for these
14 wireless emergency alerts. Wireless emergency alerts
15 may not be available in the entire service area or on
16 all devices. For details on the availability of this
17 service and the wireless emergency alert capable
18 devices, please ask a sales representative or go
19 to...", and we recommend the carrier's website be
20 positioned there. Then we also recommend citing the
21 FCC rule requiring this notice.

22 All right. One of the things we've been
23 working on as you heard from the other presenters was
24 how the message would be developed. First of all, we
25 had to look at what we thought an effective message

1 would contain. We drafted some recommendations on
2 what the message elements should be. We've gone back
3 and forth with representatives from the other groups.
4 And we've come up with a list, and I'd like to give
5 you the list now in the order that we believe it
6 should be presented to the user.

7 So the first thing that would be presented
8 would be what's happening, what's the event, and we
9 propose that that text come from the values in one of
10 two fields in the CAP message. The second element of
11 the message is what's the recommended action, what
12 action should the user take. The third element would
13 be what is the affected area. The fourth element is
14 the expiration time, and the fifth element is who is
15 the sending agency.

16 Now, as I think Brian kind of explained in
17 his presentation, what we propose to do is have the
18 Alert Gateway look at particular fields in the CAP
19 message. Some of these fields are optional. So we're
20 going to recommend some training be done for the
21 message initiators so they understand that these
22 fields need to be filled out in order for us to be
23 able to develop an effective emergency alert message
24 for the wireless community. We believe this is a very
25 doable solution to generating an effective alert

1 message and to do it consistently and to do it so that
2 it fits in the 90-character limit that we have.

3 There's an example here under the last
4 bullet on this page of what an emergency alert message
5 might look like. However, if we do it in the order
6 now that we think it should be done, it would read,
7 "Tornado warning. Take cover immediately. Fairfax
8 County until 3:00 p.m. Eastern Daylight Time," and
9 then in parentheses the sending agency, National
10 Weather Service or NWS.

11 As I said before, we went over this
12 yesterday and came to this decision yesterday, so this
13 is not reflected as yet in our delivery document, but
14 the change request will be coming soon reflecting
15 this.

16 Issues currently being addressed, as Brian
17 reported, one of the things we're really looking hard
18 at is the characteristics of the audio attention
19 signal. What's going to be an effective signal? What
20 frequency ranges does it need to encompass? How many
21 tones does it need to contain? What's the duration?
22 What should be the time period between the tone
23 signals? How long should it be?

24 We're also looking at the same questions for
25 the vibratory signal. We have access to some audio

1 and tactile experts that we're trying to use their
2 expertise, and hopefully within the next 30 days or
3 so, we will have some recommendations that we can
4 propose. We're working jointly with the other groups,
5 so it's probably going to come as a recommendation
6 from all of us once we reach a decision.

7 We discussed yesterday about the expiration
8 time and came to the decision that we felt the most
9 effective, most user-friendly way of presenting the
10 expiration time would be on a 12-hour clock, including
11 a.m. or p.m. and the time zone indication. So you'd
12 get a message that says until 3:00 p.m. Eastern
13 Daylight Time. That would be generated by the Alert
14 Gateway based on the value that the Alert Gateway sees
15 in the expires field in the CAP message.

16 We are working right now. We began the
17 process yesterday and we'll be doing it for the next
18 month or so working on what text strings should be
19 associated with the various CAP fields in these fields
20 that Alert Gateway will be looking at. As Brian
21 reported, we are working with the CTG on what makes
22 sense for retransmission times, how often should the
23 message be retransmitted to effectively cover the most
24 users over the most effective time of the alert and
25 the rebroadcasting capabilities.

1 We also had a brief discussion yesterday
2 about this idea of the living document and continuing
3 this work, and we're very supportive of that. I don't
4 think any of us think that this should be a full-time
5 job for us, although it seems to be right now, but we
6 do think that this effort to develop this capability
7 and then refine it over a number of years should be
8 continued. Thank you.

9 MR. MORAN: Okay. Any questions for Gary?

10 MR. JONES: There's one back there.

11 MR. MORAN: Yes?

12 PARTICIPANT: Yes. Just generally, given
13 that these alerts aren't going to generally happen
14 that often and that when a user first sees them they
15 actually could create more of a panic that we're
16 trying to avoid actually or help against and also
17 since it might cause a mass of voice congestion if
18 people start calling of a sudden, is the User Needs
19 Group going to address education issues, how to
20 educate the population on these new alerts and such
21 and ways in which to give people proper behavior or
22 possible behavior, you know, don't make a phone call
23 if you don't need to and things of that nature? Is
24 that going to be part of what you'll look at, or is
25 that going to be some other domain?

1 MR. JONES: Well, we have discussed the
2 problem. We don't really have a good solution for it.
3 In fact, what we have been discussing in the way of
4 education has been mostly directed toward the message
5 initiator end and how to help them be able to develop
6 the most effective message for us.

7 But I agree with you. What we don't want to
8 do is drive behavior that floods the network with
9 calls, floods our customer service with calls. And
10 any idea that people have on how that education might
11 be accomplished, we'd certainly like to hear them.

12 MR. MORAN: Any other questions for Gary?

13 (No response.)

14 MR. MORAN: Okay. Thank you. An excellent
15 report as all of the working group reports were very
16 good, and I think they all really show the impressive
17 work that each of the working groups have been doing.
18 And, of course, we have a short time period to get the
19 reports, the recommendations back to the Commission,
20 so the impressive level of work I think will have to
21 continue.

22 Next we show next steps. Jeff Goldthorp, I
23 wonder if you could go over the schedule that we have
24 and perhaps any discussion on next steps.

25 MR. GOLDTHORP: Sure. I'd be happy to. As

1 you heard from the working group leaders, what's
2 happening right now is an intense level of meetings
3 among the working groups, conference calls and face-
4 to-face meetings. This week we happen to be having a
5 lot of face-to-face meetings, and that's because a lot
6 of you are in town. Just today, we've got meetings
7 going on between three out of five of the working
8 groups, and yesterday the fourth met. The fifth is
9 also meeting today.

10 So just in the past two days, all of the
11 working groups will have met face to face, and these
12 meetings are detailed, technical meetings where issues
13 are getting worked in real time, and they're followed
14 up with conference calls and so forth. So that will
15 be going on to get the technical issues resolved that
16 need to get resolved by August.

17 We expect that there will be a draft of the
18 report ready by later in September, and that will
19 obviously take all of the technical issues that have
20 been settled and will polish the text and get it ready
21 for your consideration and review.

22 We also expect that there will be two more
23 meetings of this committee. We don't have the dates
24 to announce just yet, but the first of those will be
25 an informational meeting a lot like this one and the

1 other ones that we've had have been. And the final
2 meeting, which will be in October, will be a meeting
3 where we will vote on the recommendations. And you'll
4 have a chance to review them before the vote. We'll
5 give you time obviously to do that, to read them and
6 to familiarize yourself with them.

7 And we're on track to get this work done and
8 to get the recommendations delivered from the
9 committee to the FCC by the October 12 deadline that
10 Congress has given us. So those are our next steps.

11 MR. MORAN: Okay. Any of the working group
12 leaders, anything you want to say about the next
13 steps?

14 (No response.)

15 MR. MORAN: Okay. Any other business to
16 conduct here?

17 PARTICIPANT: Excuse me. I did have a
18 question. Jeff, you said you don't have a date yet.
19 Will it be late August for the next meeting perhaps,
20 mid-August, or do you have any idea what part of the
21 month?

22 MR. GOLDTHORP: Well, no. I don't even know
23 if it will be in August.

24 PARTICIPANT: Okay.

25 MR. GOLDTHORP: I mean, especially since

1 we're having this meeting in July, so I don't know.

2 Yes, we'll be sending an e-mail out about that.

3 MR. MORAN: Okay. Any other business?

4 PARTICIPANT: Just one. Is there a
5 confirmed date for the next meeting yet and for the
6 final meeting?

7 MR. MORAN: No. Actually, Jeff, say that
8 again if you would.

9 MR. GOLDTHORP: Yes. There is no confirmed
10 date for the next meeting. We'll be sending out an e-
11 mail shortly to nail down the date of the next
12 meeting.

13 PARTICIPANT: Very good. Thank you.

14 MR. MORAN: Okay. Any other comments then?

15 (No response.)

16 MR. MORAN: Okay. We're adjourned. Thank
17 you all.

18 (Whereupon, at 11:15 a.m., the meeting in
19 the above-entitled matter was concluded.)

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REPORTER'S CERTIFICATE

DOCKET NO.: N/A
CASE TITLE: FCC Commercial Mobile Service Alert
Advisory Committee Meeting
HEARING DATE: July 18, 2007
LOCATION: Washington, D.C.

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Federal Communications Commission.

Date: July 18, 2007

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