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COMMUNICATIONS COMMISSION
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Field Hearing on
Deployment of Advanced Telecommunications Services
in Rural Areas

Pages: 1 through 214
Place: Lowell, Massachusetts
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Official Reporters
1220 L Street, N.W., Suite 600
Washington, D.C. 20005-4018
(202) 628-4888
hrc@concentric.net

FEDERAL COMMUNICATIONS COMMISSION

796 Joint Board

Field Hearing on
Deployment of Advanced Telecommunications Services
in Rural Areas
May 22, 2000

Middlesex Community College
Lowell, Massachusetts

Heritage Reporting Corporation
(202) 628-4888

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1 I think it's appropriate that you have this
2 meeting here in Lowell, and also at a community college,
3 because we truly see ourselves as the access point for new
4 generations of citizens who come to higher education.

5 So I welcome you here today. I offer to show you
6 around the campus, if you have a free minute. And we also
7 invite you to our internet cafe, which is right next door,
8 right on the canal, an opportunity for our students to come
9 in and to have direct access to the internet. The college
10 has made a real commitment to technology. And, again, I
11 welcome you to take a look around.

12 So enjoy your day. I hope it's successful. We
13 look forward to working with you in the future.

14 Thank you.

15 (Applause.)

16 THE HONORABLE MICHAEL K. POWELL: Thank you, Madam
17 President, and thank all your students and the college
18 community, again, for so graciously hosting us here.

19 Broadband employment is one of the most important
20 areas of responsibility specified in the Telecommunications
21 Act of 1996. And this joint conference grew out of both the
22 requirements of the Act and the interest of both federal and
23 state regulators, in part, to collect data, to monitor the
24 deployment of broadband communication services.

25 The unilateral broadband is a seminal

1 technological event. But if you oversubscribe to the hype,
2 you believe that it does everything from end war forever to
3 curing hair loss. And unfortunately for some of us, that's
4 a little too much to hope for.

5 But our challenge, as policy makers, of course, is
6 to get past the glimmering surface of this issue and
7 understand the basic fundamentals in order to make more
8 efficient and more meaningful policies in order to advance
9 the prospect that this will be something that benefits all
10 consumers to a great extent. This is our hope and this is
11 what this proceeding is all a part of, and I look forward to
12 a very productive day.

13 But before we get into the substance of it, this
14 effort would not even be initiated without the good works of
15 our colleagues in the legislature, both at state and federal
16 levels. And we are privileged to have with us today as
17 guests two individuals who serve in the United States
18 Congress and will continue to be partners of ours in this
19 endeavor.

20 I'd first like to take the opportunity to
21 introduce you to Congressman Marty Meehan, who represents
22 the Fifth District in which we sit, so he's also our host
23 today, as I understand it.

24 He has been a tireless advocate in the area of
25 economic development and smart growth, and certainly the

1 deployment and availability of broadband and advance
2 services access is a critical component of community growth
3 now and in the future.

4 Congressman, I have to divert on a personal note,
5 because I note that you oversee what used to be the Army
6 post at Ft. Devens.

7 And for those who may not realize it, Ft. Devens
8 forty years ago is where my mother and father met, Colin and
9 Alma Powell, when he was stationed at Ft. Devens, and they
10 met and married, and so in a way, this is my birthplace in a
11 sort of way, as well.

12 So with that, it's my pleasure to invite you to
13 come to the podium.

14 (Applause.)

15 THE HONORABLE MARTIN T. MEEHAN: Thank you very
16 much, Mr. Powell. Delighted to have you back here, and
17 you'd be excited if you could see the economic development
18 that's taking place at Ft. Devens. It was a major challenge
19 for the communities surrounding Ft. Devens, and we have had
20 great economic development there.

21 In your comment you said, before you got to the
22 substance of today's event, we wanted to hear from
23 Congressman Meehan and Senator Kerry, we'll try to -- I have
24 a little bit of substance, I hope you don't mind, but in any
25 event -- and I know Senator Kerry does, as well, but I want

1 to, first of all, welcome Commissioner Powell and
2 Commissioner Perlman and all of today's panelists to the
3 City of Lowell.

4 And many of you may know that Lowell, with its
5 mills and factories, is the birthplace of America's
6 industrial revolution. And, you know, for a time many
7 thought that Lowell's significance and signature would not
8 extend beyond its rich history. But what we've seen in the
9 past few years in this community has been a second
10 revolution, a revolution of commerce, communications and
11 community that has elevated this city to a national model
12 for economic and urban revitalization.

13 And I can tell you, as a lifelong resident of the
14 city, I am particular pleased that this city isn't just
15 wired for the broadband and E-commerce resolutions, but we
16 are affirmatively shaping those revolutions.

17 There was a great piece recently in the Lowell Sun
18 in March, detailing how Lowell's canvas media solutions is
19 helping cable companies, like MediaOne, bring broadband to
20 life by designing higher capacity networks.

21 I'm not sure what was said at the first joint
22 conferences and regional hearings that you've had, but at
23 least from a Massachusetts perspective, I think you'll hear
24 a story of great progress that's being made and much to
25 come.

1 According to a 1999 Yahoo study, Boston was the
2 fifth most wired city in the United States and we're rapidly
3 getting to more local deployment of broadband, not only to
4 businesses, but also across that last mile in the homes.

5 Some of you were over to MediaOne earlier today.
6 I can testify personally to this, as one of Lowell's
7 MediaOne's Roadrunner service subscribers, and every time I
8 go over to MediaOne, I get home, my wife says, what are we
9 buying now? Today it's digital that I saw a great
10 presentation on.

11 But we are breaking the digital divides between
12 urban and rural, public and private, and rich and poor.
13 For example, thanks to federal initiatives like E-rate,
14 state government assistance and efforts by companies like
15 MediaOne to wire schools free, nearly 70 percent of
16 Massachusetts classrooms were connected to the internet in
17 1999.

18 And with the new Massachusetts community network
19 initiative, those schools, as well as libraries and
20 municipal buildings will enjoy high-speed internet access
21 through digital subscriber line.

22 It's also interesting that Bell Atlantic rolled
23 out digital subscriber lines in Lawrence, Dorchester,
24 Roxbury and Fall River before doing so in Sudbury, Harvard
25 and Rockport.

1 Not that I begrudge Sudbury or Harvard or Rockport
2 from their broadband, but it's certainly good to hear that
3 many low-income communities in Massachusetts can participate
4 in the broadband revolution.

5 Today's hearing is important, because ensuring
6 broadband deployment is exceedingly important.

7 Why? For one, because if we bridge the high-speed
8 digital divide, we bridge more fundamental divides. We know
9 that schools and libraries and low-income areas often can't
10 provide students with the same opportunities and resources
11 as their counterparts in high-income areas.

12 The promise of broadband is enabling these
13 students to read books from any library in the world and see
14 electronically what the kids in high-income areas see
15 firsthand.

16 Why else broadband? Because it opens doors to
17 learning. And the lesson about modern economy is that
18 knowledge is king.

19 And if you look at the Massachusetts economy, just
20 between 1997 and 1998, a microcosm of what's gone on over
21 the past decade, you see contractions in the defense and
22 textile sectors, and expansions in software communications,
23 innovative services and financial services sectors.

24 What we need to do is equip Massachusetts
25 residents with the knowledge and skills necessary to secure

1 well-paying jobs in these growth sectors. Broadband access
2 from the earliest age is part of the answer.

3 And, finally, broadband deployment stands to take
4 the E-commerce to a new level, to the level of its full
5 potential.

6 According to the Massachusetts Technology
7 Collaborative Index, the 491 best know E-commerce companies
8 in Massachusetts employed a total of 18,567 people in 1998.

9 Furthermore, 38 percent of Massachusetts companies
10 surveyed by computer electronics engaged in web based
11 business to business transactions while 37 percent conducted
12 web based business to consumer transactions.

13 Given these statistics, I'm particularly pleased
14 to have voted in the United States House of
15 Representatives for a long extension of the existing
16 internet tax moratorium, which passed the House about three
17 weeks ago.

18 All of this amounts to strong arguments for
19 President Clinton's proposal to provide \$25 million in
20 grants and loans to accelerate private sector broadband
21 deployment in underserved urban and rural communities.

22 Let me again commend the Joint Commission for
23 conducting this hearing. I'm delighted that all of you have
24 come to the City of Lowell. We are positioned extremely
25 well here in Lowell and in Massachusetts to be a leader in

1 this great technology explosion.

2 Thank you very much, Commissioner.

3 (Applause.)

4 THE HONORABLE MICHAEL K. POWELL: Thank you,
5 Congressman.

6 And I stand duly chastised, and I need to, because
7 the next individual, who needs no introduction, happens to
8 sit on the Commerce Committee, which oversees the FCC, and
9 from whom all wisdom flows, I assure.

10 (Laughter.)

11 THE HONORABLE MICHAEL K. POWELL: Senator John
12 Kerry is not only an able Representative of the State of
13 Massachusetts, but is one of the preeminent national leaders
14 of our country. Not only is he a decorated Vietnam veteran,
15 he began his legal career, if I understand it correctly,
16 right in Middlesex County, and so a bit of a homecoming, I
17 suppose.

18 He was elected Governor in 1982 and into the
19 Senate in '84, and he's noted for a great deal of things,
20 including leadership on balancing the budget, reducing our
21 national debt and his commitment to education, and has been
22 a tireless advocate in the proponency (sic) of E-rate and
23 wiring of schools and libraries in America.

24 And with that, I give you the Honorable John
25 Kerry.

1 (Applause.)

2 THE HONORABLE JOHN F. KERRY: Thank you, sir.

3 Mike, thank you very, very much. We are delighted
4 to welcome you home. We believe chauvinistically that
5 Massachusetts gives birth to all great things and we include
6 you in that now.

7 (Laughter.)

8 THE HONORABLE JOHN F. KERRY: This is the first
9 time I've ever spoken to a brick pylon before.

10 (Laughter.)

11 THE HONORABLE JOHN F. KERRY: It's a very
12 interesting experience, you know. I can't exactly say,
13 march forward with me to the -- you know, but anyway, it's
14 great to be back here.

15 I was just here the other day. It seems as if an
16 event is happening of consequence in Massachusetts, now,
17 Carole, it is happening at Middlesex Community College, and
18 we're delighted to be here with you. You're keeping Molly
19 Sheehe very, very busy, working hard. But thank you for the
20 privilege of being here with you.

21 And, Commissioner Perlman, Commissioner Powell,
22 thank you for being here. We're very, very honored to have
23 you here, and this is a very important subject, an important
24 gathering, and we're delighted it's happening here in
25 Lowell, and I'm always pleased to be here with Marty Meehan.

1 Marty and I beg your indulgence, we will be
2 leaving a little bit early in the course of this panel,
3 because we are going to do something that is certainly one
4 of the great pleasures of what we get to do in public life,
5 is celebrate the opening of the Riverwalk here in Lowell,
6 which is a great step forward, and something that he and I
7 have worked on hard. So I hope you'll forgive us for that.

8 But let me just share a few quick words with you
9 about this. And I welcome the Commissioners that -- we've
10 got commissioners from Texas, Connecticut, a tremendous
11 gathering of business people, those working in the state on
12 the question of digital divide communications and people
13 representing the Berkshire Connect, Mr. Podesta is here, and
14 others from Cape Cod, all of whom are sort of spontaneously
15 working at this question of how we're going to deal with
16 this issue.

17 Let me just begin by saying this is not a passing
18 fad or somehow an issue simply that I think is important to
19 the people in the technology field because they understand
20 it. It is important to all of us as Americans.

21 It is not, however, a divide that I think is
22 defined exclusively in the digital context. And I think
23 it's important for people to understand that.

24 I had a recent conversation with John Chambers,
25 talking about Cisco, talking about the digital divide, and

1 he and others helped me to understand the degree to which it
2 is really a reflection of the industrial revolution divide,
3 too.

4 It is a continuation of a divide that exists too
5 firmly in America, as a consequence of the unwillingness of
6 some of my colleagues, and Washington, itself, to come to
7 grips with choices we ought to be making about investment in
8 communities with low tax base, either urban or rural. So
9 don't see the digital divide only in the context of the
10 digital world.

11 It is linked to the choices we make as political
12 people about schools, about housing, about infrastructure
13 and what kinds of educational opportunities are available to
14 those areas that don't have the tax base to make the choices
15 of Weston and Concord and Carlisle and Lincoln and other
16 communities in Massachusetts that they can more easily make.

17 And that is an important ingredient of the choices
18 that we face with respect to the E-rate, but frankly with
19 respect to a lot of the other choices we need to confront as
20 to how we close this divide.

21 There are other, obviously, critical issues that
22 we need to think about, also.

23 For all of America, this is not, again, something
24 we ought to take our time about. The greatest single
25 restraint on growth in New England, in California, and in

1 most states that are beginning to harness the energy of the
2 new economy, as we call it, which is really the technology
3 based economy, and it has been for some number of years,
4 incidently.

5 This is not, also, a phenomena in suddenly of just
6 late 1990s. You can go back to the Sixties and the same
7 phenomena struck Wall Street with respect to Techtronics and
8 all of the electronics of the early printed circuit board
9 and electronics as it suddenly became in fashion. And out
10 of the 250 or so companies that everybody was rushing around
11 and investing in, there are probably about four or five
12 left, if that, in terms of computer manufacturing and so
13 forth.

14 So this is part of a process ongoing, and we need
15 to think about it in the context of other educational
16 disciplines, besides moving the mouse and clicking, and sort
17 of, you know, traveling through distance, learning
18 opportunities that will become more real, because there's
19 still a thinking process and a value oriented process and so
20 forth that need to be part of the basics of our educational
21 structure, also, and that will not change. It may even
22 become more pronounced in our need to deal with it.

23 But in the immediate term, the greatest restraint
24 on growth is lack of available skilled labor pool. And some
25 people tell me it is as great as a 400,000 to one-million

1 person gap right now, today.

2 And I talked to countless CEOs of the dot comm or
3 some other kind of technology who tell me the only reason
4 they cannot expand is they can't find the people.

5 So the urgency of making this world available as
6 rapidly as possible. It's not going to solve their
7 expansion choices for tomorrow, but the urgency of expanding
8 access to the web and the net and to distance learning
9 opportunities and all that goes with it ought to just slam
10 people in the face as hard as possible, and we need to move
11 immediately to address it.

12 Obviously, I happened to believe in what is
13 happening in Maine. I think Angus King is absolutely
14 correct, that one of things we ought to do, and it's not
15 that expensive, is make laptops available to every kid after
16 a grade. You can fight about what grade it is, whether it's
17 Grade 7 or Grade 8 or whatever, but they ought to have it.

18 And we can afford to do that, frankly, and combine
19 with the federal government. When you look at 55-million
20 kids in school and you reduce that to the number of grades
21 you're going to supply it to, and then you take need based
22 out of it, you really are reduced to a fairly manageable
23 level, and it's something we can do.

24 But in addition to that, we're going to have to
25 confront the question of how available access to that

1 internet is really going to be, whether or not the E-rate
2 itself is even too much, whether or not schools ought to
3 have free access or what kind of access we're going to have.

4 Now, this is obviously a battle that the entire
5 world has yet to sort of resolve, because we don't know
6 what's going to happen in the advertising based versus
7 subscription based capacity of many of these companies to
8 survive, and that will obviously affect people's attitudes
9 about what kind of ultimate access there will be.

10 But certainly for educational institutions and for
11 our children, I think it is shortsighted of us not to try to
12 bend over backwards to make that even more accessible than
13 it is today in terms of the cost.

14 To that end, Senator Moynihan and I will be
15 introducing, either later this week or next week,
16 legislation that will provide major tax credits to the
17 private sector in order to encourage them to rapidly made
18 broadband available as broadly as possible in the country,
19 so that we're not left with these -- so that we augment and
20 leverage what Cape Connect or Berkshire Connect or others
21 are undertaking to do themselves.

22 It is inexcusably that T-1 lines cost four times
23 more in Western Massachusetts than they do in Boston or
24 Eastern Mass., and that that's the differential between
25 businesses being able to open and people being able to have

1 high-speed access at a time when that is going to be the
2 huge difference between uses and capacities that both the
3 private sector and the public sector in the context of
4 education are going to be able to avail themselves of.

5 So this is not -- you know, the many different
6 uses, obviously, lend themselves to enormous creative
7 variation. And you'll hear about that today, as different
8 people lay out to you some of the choices they have made and
9 ways in which they are doing this.

10 But in the end, this doesn't demand a huge stress
11 level on our, you know, expenditure of cell power, thinking
12 power. It's pretty obvious what we've got to do and the
13 road we've got to go down, and there are some basics as to
14 how we're going to do it.

15 So I hope that out of your session today will come
16 a good consensus about what some of those basics are, and my
17 staff will stay here, and we look forward to working with
18 you as rapidly as possible as we can to get a national
19 consensus reflected in Acts of Congress that will open this
20 world up to every single American as rapidly as possible,
21 and that is the best single way in which we're going to
22 really capture the future and take advantage of, and be able
23 to stay on top of this economic wave that we are lucky
24 enough to be riding right now.

25 So with that said, I comment you to your work and

1 I thank you for the privilege of sharing just a few thoughts
2 with you about this enormously important subject area.

3 Thank you very much, Mike.

4 (Applause.)

5 THE HONORABLE MICHAEL K. POWELL: Thank you,
6 Senator.

7 Thank you, Congressman.

8 Senator Kerry's remarks remind me of a few things.
9 One of the things he said in the beginning was that -- or
10 that Congressman Meehan did, was we are in part of the
11 birthplace of another revolution.

12 And in thinking about that, New England being the
13 cradle of liberty and part of a great revolution, it
14 occurred to me that looking at one of the great symbols of
15 the Revolutionary War made famous by Benjamin Franklin in
16 the Pennsylvania Gazette, its image of the serpent divided
17 into many pieces and the statement, "We will either join or
18 die."

19 And so I've taken some poetic liberty with the
20 symbol -- he'll forgive me, when we get there -- that it's
21 important to remember that broadband access or advanced
22 services is truly a multidimensional problem, with many,
23 many components, some of which we, as regulators, have some
24 ability to influence, some which we don't, some which the
25 private sector alone will have the ability to influence or

1 tackle, some of which they won't. But the key is, that if
2 all those pieces don't come together, you don't have a
3 living thing.

4 And if you'll look up here, you'll see just my
5 hint of some of those pieces, everything from the
6 infrastructure to computing devices and hardware, and the
7 availability of those sorts of things to consumers; to
8 applications to be used in that environment; to regulatory
9 and I should say legal environment, how we'll tackle issues
10 of intellectual property and privacy and security are
11 critical to moving to consumer acceptance, and the
12 economics, and so that these things can be deployed in
13 efficient and innovative ways on behalf of the industries;
14 whether the workplace, people's employers will be
15 contributors to the broadband revolution.

16 It's interesting to note last year, the efforts of
17 Delta Airlines and Ford Motor Company, in doing something
18 similar to Senator Kerry's call for arms, which is providing
19 computers to all of its employees, with access for \$5 a
20 month. That'll get a revolution going as quick as anything.
21 And so I'm glad that we're spending some time today on
22 public/private partnerships.

23 And education. It's all for naught, if all for
24 naught is committed to making sure that we understand the
25 fundamentals and the basics that allow us to use these

1 things as tools to truly produce that labor force we're
2 talking about in the future.

3 It's not enough to put up a machine with a very
4 sophisticated infrastructure if we don't develop the efforts
5 and the curriculum and the educational models, both for
6 adults and children, to allow them to become productive
7 technological digital citizens.

8 And so with that, I'm about to turn over the
9 podium to Commissioner Brett Perlman.

10 Before I do, I have an obligation to recognize
11 some FCC employees who are here who have done a great deal
12 in helping with this.

13 First of all, Larry Strickland, the Chief of the
14 Common Carrier Bureau is here.

15 Larry, if you'll raise your hand? There you are.

16 My advisor, Carl Dixon, is over here.

17 And Ellen Blacker, who has done a great deal of
18 work here.

19 If there's someone I missed, let me know later,
20 and I'll get them.

21 Thank you.

22 Brett, you want to take the podium?

23 THE HONORABLE BRETT A. PERLMAN: Well, thank you,
24 Commissioner, Powell.

25 We are here today, really, because of two big

1 ideas. Long before the digital divide became a popular
2 term, in Section 706 of the Federal Telecommunications Act,
3 Congress required that the FCC report on whether the
4 deployment of the advanced telecommunications capability is
5 being deployed to all Americans in a reasonable and timely
6 fashion.

7 I want to thank Congressman Meehan and Senator
8 Kerry for their leadership and support in being here today
9 on what we think is a very important endeavor and being
10 forthright in putting 706 in the Act.

11 The second big idea is that the FCC, carrying out
12 its mandate, its 706 mandate, has partnered with the
13 National Association of Regulatory Utility Commissioners in
14 what we are calling a cooperative federal effort to gather
15 data on broadband deployment.

16 And I want to thank Commissioner Powell for his
17 leadership in this effort and acknowledge Larry Strickland,
18 the Chief of the Common Carrier Bureau, for their efforts in
19 making this really a cooperative effort.

20 This is the fourth regional hearing that has
21 stretched from Alaska to Augusta and will now go from Maine
22 to Miami to look at best practices in broadband deployment.

23 And as Senator Kerry said, we were here to
24 understand, to leverage and extend models for broadband
25 deployment that have worked in other areas of the country.

1 We have three topics to discuss today.

2 First, data gather; second, public/private
3 partnerships; and, third, rural success stories.

4 But before we do that, I wanted to thank some of
5 the people who have made this day possible.

6 I want to thank President Cowan and her staff for
7 allowing us to use Middlesex Community College.

8 And I want to thank the New England Conference of
9 Public Utility Commissioners for hosting this regional
10 meeting. I think it's truly an example that the Boston to
11 Austin connection extends the telecom policy as well as to
12 president politics.

13 And I want to introduce some of those New England
14 Commission members and other legislators who are here today.

15 The Honorable Jack Goldberg of Connecticut, the
16 Honorable Paul Vasington of Massachusetts, the Honorable
17 Thomas Welch of Maine, and the Honorable Marge Kilkelly's
18 name is also joining us here today.

19 I also want to mention some of those key staffers
20 who spent many hours enthusiastically helping us to make
21 this day possible.

22 Nancy Andrews, Paul Hudson, Ann Mignatius and Ron
23 Wheatly, have made this day. We would not be here without
24 their assistance.

25 In addition, there are numerous others who have

1 participated in planning calls to make this day possible,
2 and I just wanted to thank all of them for their help and
3 participation.

4 A few ground rules, as we get started.

5 We want to encourage, make this truly a broadband
6 interactive day, so we want to encourage a dialogue and,
7 therefore, will ask panels to keep their comments short.

8 Ellen, up here, is going to be our timekeeper, and
9 we'll let people know if they're running more than three to
10 five minutes.

11 We're also distributing index cards for questions
12 from the audience. Please feel free to write your questions
13 on cards and hand them to a staff member, who will circulate
14 and give them to our Moderator, and he will be happy to ask
15 those questions.

16 And, finally, I wanted to at least contribute two
17 of my own ideas to the dialogue as we begin this discussion.

18 The first idea is that there are multiple issues
19 in the advance services deployment, which we will be
20 discussing today. Whether they are issues of -- internet
21 issues, such as to income, education, ethnic background,
22 gender, age or other demographic factors affect access to
23 computers in the internet.

24 There's also a question of broadband access. Our
25 carriers deploying broadband to reach all customers,

1 particularly rural, high cost and low income customers.

2 And, finally, there's an issue as to competitive
3 choices, what communities will have choices in broadband
4 suppliers.

5 All these questions are questions that we will be
6 answering, hopefully investigating it and somewhat answering
7 today.

8 I think it's important to know, also, that there
9 are no one size fits all answer to these questions.
10 Depending on what the demand characteristics of a particular
11 area and the supply characteristics in terms of population
12 density, we may find that there are answers that go from
13 simply letting the free market work in areas with high
14 ability to pay and high population density to perhaps
15 universal service and community networks in areas where the
16 market may fail because of supply characteristics and
17 ability to pay.

18 In between those, there are a wealth of other
19 possibilities, such as wireless technology, as technology
20 advances -- obviously, that's going to effect broadband
21 deployment -- and economic and community development.

22 So I put this 2-by-2 matrix up here to remind
23 people and perhaps to get some comments on potential policy
24 solutions that we might want to address during the day.

25 With that, I'm going to turn it over the Moderator