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September 10, 2004

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Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: WC Docket No. 04-30, – Emergency Request for Declaratory Ruling – Additional Ex Parte Filing By Gemini Networks CT, Inc.**

Dear Ms. Dortch:

Enclosed on behalf of Gemini Networks CT, Inc. is the Decision of the Connecticut Department of Public Utility Control of August 25, 2004 affirming the findings and conclusions of its previous December 17, 2003 decision directing Southern New England Telephone Company to unbundle its HFC network.

Respectfully submitted,

A handwritten signature in black ink that reads 'Paul C. Besozzi'.

Paul C. Besozzi  
Counsel for Gemini Networks CT, Inc.

PCB:tmc



# STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL  
TEN FRANKLIN SQUARE  
NEW BRITAIN, CT 06051

DOCKET NO. 03-01-02RE01    PETITION OF GEMINI NETWORKS CT, INC. FOR A  
DECLARATORY RULING REGARDING THE  
SOUTHERN NEW ENGLAND TELEPHONE  
COMPANY'S UNBUNDLED NETWORK ELEMENTS  
- FEASIBILITY DETERMINATION

August 25, 2004

By the following Commissioners:

Jack R. Goldberg  
John W. Betkoski, III  
Donald W. Downes

**DECISION**

## DECISION

### I. INTRODUCTION

#### A. BACKGROUND OF THE REOPENED PROCEEDING

By Decision dated December 17, 2003 (Gemini Decision), the Department of Public Utility Control (Department) determined that certain hybrid fiber coaxial (HFC) facilities owned by the Southern New England Telephone Company (Telco or Company) were deemed to be unbundled network elements (UNE) and could be offered on an element by element basis. The Department also determined that before those UNEs could be made available to Gemini Networks CT, Inc. (Gemini), Gemini must negotiate and enter into an interconnection agreement with the Telco pursuant to §§251 and 252 of the Telecommunications Act of 1996 (Telcom Act).<sup>1</sup> In response to that directive, the Telco appealed the Gemini Decision to the Superior Court of Connecticut Judicial District of New Britain, Connecticut (McWeeny, J.) (Court).<sup>2</sup> On April 1, 2004, the Court issued its Memorandum of Decision (Court Decision) in this matter. In that decision, while finding that the Department correctly determined that the HFC facilities constitute UNEs, the Court also found that the Department did not make a finding or determination that the unbundling of those facilities was "technically feasible."<sup>3</sup> Accordingly, the Court directed the Department to reopen the instant proceeding to make the necessary determination/finding.

By the Decision dated April 6, 2004, pursuant to §4-181a and 16-9 of the General Statutes of Connecticut (Conn. Gen. Stat.), the Department reopened the instant docket for the limited purpose of addressing the Court Decision.

#### B. CONDUCT OF THE PROCEEDING

By Notice of Hearing dated May 17, 2004, public hearings were held in the Department's offices, Ten Franklin Square, New Britain, Connecticut 06051 on June 14 and 15, 2004. By Notice of Close of Hearing dated July 1, 2004, the hearing in this matter was closed.

The Department issued its Draft Decision in this docket on August 4, 2004. All parties and intervenors were offered the opportunity to file written exceptions and present oral argument concerning the draft Decision.

### II. COURT DECISION

By Memorandum of Decision dated April 1, 2004, the Court found that the Department correctly determined that the HFC facilities constitute UNEs which are used to provide telecommunications services and that their unbundling was in the public

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<sup>1</sup> Gemini Decision, pp. 1 and 49.

<sup>2</sup> See No. CV 04 0525443S.

<sup>3</sup> Court Decision, p. 5.

interest and consistent with federal law.<sup>4</sup> However, the Court found that the Department did not make the necessary determination in the Gemini Decision that the unbundling of the HFC network components were technically feasible of being offered as required by Conn. Gen. Stat. §16-247b(a).<sup>5</sup> Accordingly, the Telco's appeal of the Gemini Decision was sustained and remanded to the Department to make the required finding or determination pursuant to Conn. Gen. Stat. §16-247b(a).<sup>6</sup>

### **III. DEPARTMENT ANALYSIS**

#### **A. INTRODUCTION**

In the Gemini Decision, the Department found that Conn. Gen. Stat. §16-247b(a) provided the Department with the authority to require the unbundling of ILEC network elements.<sup>7</sup> The Department also found that the Telco's HFC network met the definition of a "network element" and must be unbundled.<sup>8</sup> While that finding was upheld by the Connecticut Superior Court, the Gemini Decision was remanded for a finding by the Department that unbundling the HFC network was technically feasible pursuant to Conn. Gen. Stat. §16-247b(a).<sup>9</sup> Conn. Gen. Stat. §16-247b(a) requires the unbundling of a telephone company's network, services and functions which the Department determines after notice and hearing are in the public interest, are consistent with federal law and are technically feasible of being tariffed or offered separately or in combination.

In light of the Court upholding the Department's findings and conclusions in the Gemini Decision, the Department hereby reaffirms them. In addition, based on the Court's remand to address the technical feasibility of unbundling the Telco's HFC network, the Department's analysis in this reopened proceeding will be limited to that one issue. In conducting its analysis as to whether the HFC network is technically feasible of being unbundled, the Department first turns to the federal standard for technical feasibility.

#### **B. FEDERAL TECHNICAL FEASIBILITY STANDARD – 47 C.F.R. §51.5**

The code of federal regulations provides the standards under which a determination can be made as to whether it is technically feasible to unbundle network elements. In particular, 47 C.F.R. §51.5 states:

Technically feasible. Interconnection, access to unbundled network elements, collocation, and other methods of achieving interconnection or access to unbundled network elements at a point in the network shall be deemed technically feasible absent technical or operational concerns that

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<sup>4</sup> While the Court's ruling appears to clearly find that the Department's determination that the HFC facilities constitute UNEs, the Telco petitioned the Court on April 8, 2004, for clarification of its April 1, 2004 decision. On April 21, 2004, the Court denied the Telco's petition.

<sup>5</sup> Court Decision, p. 5.

<sup>6</sup> *Id.*, pp. 5 and 6, 10.

<sup>7</sup> Gemini Decision, p. 34.

<sup>8</sup> *Id.*, p. 36.

<sup>9</sup> Court Decision, p. 5.

prevent the fulfillment of a request by a telecommunications carrier for such interconnection, access, or methods. A determination of technical feasibility does not include consideration of economic, accounting, billing, space, or site concerns, except that space and site concerns may be considered in circumstances where there is no possibility of expanding the space available. The fact that an incumbent LEC must modify its facilities or equipment to respond to such request does not determine whether satisfying such request is technically feasible. An incumbent LEC that claims that it cannot satisfy such request because of adverse network reliability impacts must prove to the state commission by clear and convincing evidence that such interconnection, access, or methods would result in specific and significant adverse network reliability impacts.

The Federal Communications Commission (FCC) placed on the incumbent local exchange carriers (ILEC) the burden of proving to the appropriate state commission (i.e., the Department) that access to network elements is not technically feasible,<sup>10</sup> a burden the Telco has acknowledged it must satisfy in this proceeding.<sup>11</sup>

In proving that a network element cannot be unbundled, the Telco must provide evidence which clearly demonstrates that the HFC network cannot be unbundled due to technical and operational concerns. Throughout this reopened proceeding, the Telco has proffered a number of arguments against a Department finding that unbundling the HFC network is technically feasible. These arguments include the Gemini proposal to maintain the HFC network in violation of federal technical feasibility standards; that Gemini's unbundling scheme is discriminatory; and that there are neither operations support systems (OSS) nor engineering standards in existence.<sup>12</sup>

The Department is not persuaded by the Telco's arguments. As indicated above, there is a presumption of technical feasibility that must be rebutted by the Telco. Specifically, the Telco must provide clear and convincing evidence which demonstrates that unbundling the HFC network is technically unfeasible due to technical or operational concerns. The Department finds that the Telco was unable to provide the requisite evidence. For example, the Telco has not demonstrated how Gemini's so called discriminatory use of the HFC network would adversely affect network reliability.<sup>13</sup> Similarly, the Telco has not provided specific evidence that demonstrates how the lack of an operating OSS and engineering standards would also affect reliability of the network. While the Telco has raised these issues as evidence supporting the technical unfeasibility of unbundling the HFC network, the Company has not provided the nexus

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<sup>10</sup> CC Docket No. 96-98, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and CC Docket No. 95-185, Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, First Report and Order (FRO), August 8, 1996, ¶¶198, 205.

<sup>11</sup> Tr. 6/14/04, pp. 184, 274.

<sup>12</sup> Telco Brief, pp. 24-39.

<sup>13</sup> Indeed, the Department questions this concern in light of Conn. Gen. Stat. §16-247b(b), which imposes the burden on the Telco to provide nondiscriminatory access to its facilities. In the opinion of the Department, the Telco must ensure that access to these facilities will be provided to all carriers. At the time other carriers seek access to these UNEs, the Department will entertain Company proposals as to how these facilities could be unbundled for multiple use.

between the lack of an OSS and engineering standards and the resulting impact on network reliability. In the opinion of the Department, these issues could be more readily addressed during the negotiation of an interconnection agreement or during arbitration should agreement not be reached.<sup>14</sup>

However, the Department finds the Telco's expressed concerns relative to Gemini's proposal to manage and maintain the Company's HFC facilities to have merit. The Department is not aware of any circumstances nor instances where the Telco has permitted other entities access to facilities within its telecommunications network for management and control purposes. In addition, the Department has not directed the Company to permit access to its facilities in this manner. The Department has always placed a premium on network reliability and finds no reason at this time why other than Telco employees should have access to Company facilities. Therefore, the Department will require the Telco and Gemini to negotiate, as part of their interconnection agreement, the applicable rates and charges that Gemini would incur when Company or Telco approved technicians repair, upgrade and maintain the HFC facilities that are located in the communications gain in the public rights of way.<sup>15</sup> In the opinion of the Department, contracts of this nature are consistent with the FRO and Verizon and should address those issues raised by the Telco relative to negative network reliability.

### **C. UNBUNDLING THE TELCO HFC NETWORK – TECHNICAL FEASIBILITY**

In determining whether the HFC is technically feasible to be unbundled, the Department has weighed many aspects surrounding the HFC network. These factors include the intent of the system design, the characteristics of the network in question and whether other telecommunications service providers are utilizing HFC facilities for the provision of narrowband (i.e., plain old telephone services (POTS)) and broadband services over their respective networks.

In January 1994, the Telco announced its broadband modernization plan, I-SNET, via an HFC network, that was expected to transform the Company's telecommunications infrastructure into an open, multi-media service platform. Pursuant to I-SNET, the Telco was expected to offer a "Full Service Network" that would provide a full suite of voice, data communications and cable television services to Connecticut consumers.<sup>16</sup>

In the Gemini Decision, the Department indicated that had the Company's I-SNET and the concomitant HFC network been fully constructed in the manner as envisioned by the Telco in 1994, it would have been well on its way to offering narrowband and broadband services including voice, data and video services over that network.<sup>17</sup> The record in this proceeding further supports the fact that the Telco

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<sup>14</sup> The Telco and Gemini have been previously directed to include in their interconnection agreement negotiations, the development of an HFC network OSS. See the Gemini Decision, p. 28.

<sup>15</sup> In so doing, the Department believes that Telco network reliability and security should be preserved. See Verizon Communications Inc. v. FCC, 535 U.S.467, 536 (2002); FRO, ¶203.

<sup>16</sup> Response to TE-4, Attachment A (I-SNET Technology Plan, p. 5).

<sup>17</sup> Gemini Decision, p. 28.

envisioned that I-SNET would replace all of its "twisted copper pairs" with HFC.<sup>18</sup> Thus, had I-SNET been fully deployed, all communications traffic, including POTS would be carried over that network.<sup>19</sup>

In its I-SNET Technology Plan, the Telco stated that open access was an important requirement for any network intended to support both retail and wholesale subscriber access and that I-SNET was designed to support this requirement.<sup>20</sup> As part of that plan, loop access considerations were made including 2 Wire Voice, ISDN Digital Cable and DS-1 access circuits. It was the Company's vision that the HFC network would be available for wholesale access,<sup>21</sup> thus making the HFC network technically feasible for open access and unbundling.

The Department finds that, while there are not yet standards that specifically describe how multiple CLECs will share the HFC network, there are relevant technical standards that can be applied and a choice of technically valid approaches that can be employed to provide for network access by multiple carriers. These approaches include frequency unbundling and IP-layer access. According to Gemini, frequency unbundling assigns different radio frequency channels over the HFC network while IP-layered access would allow each provider with its own IP address access via standard IP routing techniques.<sup>22</sup>

The Department further notes that the Telco's HFC network is a 750 MHz system.<sup>23</sup> Although bandwidths vary among systems (e.g., 750 or 860 MHz), CLECs such as Cablevision Lightpath – CT; Comcast Phone of Connecticut, Inc. f/k/a AT&T Broadband Phone of Connecticut, Inc.; and Cox Connecticut Telecom, L.L.C. have utilized their HFC networks to provide narrowband and broadband services.<sup>24</sup> Moreover, there are numerous carriers that are employing an HFC-based network for the provision of telecommunications services, some of which are offering wholesale access to multiple providers in other states.<sup>25</sup> These include companies such as Astound Broadband, Knology, Inc., RCN Corporation, Starpower Communications, LLC, Utilicom Networks, Surewest, Everest Connections, Blackhills Fibercom, Grande Communications, Cable & Wireless and others that are utilizing an HFC network for broadband service.<sup>26</sup>

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<sup>18</sup> Tr. 06/14/04, p. 206.

<sup>19</sup> *Id.*

<sup>20</sup> I-SNET Technology Plan, p. 46.

<sup>21</sup> *Id.*; Tr. 06/24/04, p. 209.

<sup>22</sup> Response to Interrogatory TE-109. Indeed, the Telco witness testified that these technical approaches are theoretically possible and that they allow different ways of granting access of an HFC network to multiple CLECs. However, the Telco contends that it has no relation to the specific UNE unbundling that Gemini proposed in this proceeding. Tr. 06/24/04, pp. 153 and 154.

<sup>23</sup> Response to Interrogatory TE-100.

<sup>24</sup> See for example the July 17, 1996 Decision in Docket No. 95-07-19 Application of Cablevision Lightpath-CT, Inc. for a Certificate of Public Convenience and Necessity; the June 5, 2002 Decision in Docket No. 01-04-15 Application of AT&T Broadband Phone of Connecticut, Inc. for a Certificate of Public Convenience and Necessity; and the July 9, 1997 Decision in Docket No. 97-03-26 Application of Cox Connecticut Telecom, LLC for a Certificate of Public Convenience and Necessity.

<sup>25</sup> Response to Interrogatory TE-106.

<sup>26</sup> *Id.*

By way of contrast, the Telco's HFC network is comprised of fiber optic cables, coaxial cable and associated equipment, (i.e., optical electronic nodes, amplifiers, taps, etc.), all of which can provide two-way transport; a key component of telephony services.<sup>27</sup> In the opinion of the Department, the Telco's HFC network can technically provide narrowband and broadband services. A 750 MHz network can accommodate up to a capacity of 75 analog channels.<sup>28</sup> The HFC bandwidth is typically divided into 6 MHz analog channels which in turn may be subdivided into DS0s for the provision of telephony services. In the voice communications services, the Telco's 750 MHz network was designed to support 240 DS0s<sup>29</sup> per node over a 6 MHz bandwidth to a single provider.<sup>30</sup> There are approximately 1,600 nodes currently deployed, which in the opinion of the Department, can accommodate two-way communications to consumers throughout the Telco's HFC network.<sup>31</sup>

Accordingly, in light of the above, the Department finds that the unbundling of the Telco's HFC network is technically feasible.

#### **IV. FINDINGS OF FACT AND CONCLUSIONS OF LAW**

1. In the Gemini Decision, the Department determined that certain Telco HFC facilities were UNEs and could be offered on an element by element basis.
2. Before the HFC UNEs can be made available to Gemini, it must negotiate and enter into an interconnection agreement with the Telco pursuant to §§251 and 252 of the Telcom Act.
3. The Superior Court of Connecticut determined that the Department correctly found that the Telco's HFC facilities constitute UNEs.
4. The Court remanded the instant case to Department to determine if the unbundling of the Telco's HFC facilities was "technically feasible" in the Gemini Decision.
5. The code of federal regulations, 47 C.F.R. §51.5 provides the standards under which a determination can be made as to whether it is technically feasible to unbundle network elements.
6. The FCC has placed the burden on the ILECs to prove to the appropriate state commission that access to network elements is not technically feasible.
7. In proving that a network element cannot be unbundled, the Telco must provide clear and convincing evidence that demonstrates that the HFC network cannot be unbundled due to technical and operational concerns.

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<sup>27</sup> Response to Interrogatory TE-100.

<sup>28</sup> Some slots of frequency spectrum are reserved for the use of government communications.

<sup>29</sup> One DS0 is equivalent to one analog telephone access line.

<sup>30</sup> Response to Interrogatory TE-105.

<sup>31</sup> Response to Interrogatory TE-100.

8. The Telco did not provide the requisite evidence which demonstrates that unbundling the Company's HFC network was technically unfeasible due to technical or operational concerns.
9. The Telco did not demonstrate how Gemini's "discriminatory" use of the HFC network would adversely affect network reliability.
10. The Telco did not provide specific evidence demonstrating how the lack of an OSS and engineering standards would adversely affect network reliability.
11. The Department weighed many aspects surrounding the HFC network when determining whether it is technically feasible to be unbundled and permit multiple provider access.
12. The Telco envisioned that I-SNET would replace all of its "twisted copper pairs" with HFC.
13. The HFC network would be available for wholesale access making that network technically feasible for open access and unbundling.
14. While there are no standards that specifically describe how multiple CLECs will share the HFC network, there are relevant technical standards that can be applied and a choice of technically valid approaches including frequency unbundling and IP-layer access.
15. The Telco's HFC network is a 750 MHz system.
16. There are numerous carriers that are employing an HFC-based network for the provision of telecommunications services, some of which are offering wholesale access to multiple providers in other states.
17. The Telco's HFC network is comprised of fiber optic cables, coaxial cable and associated equipment, (i.e., optical electronic nodes, amplifiers, taps, etc.), all of which can provide two-way transport.
18. A 750 MHz network can accommodate up to a capacity of 75 analog channels which can support 240 DS0s or analog access lines.

## **V. CONCLUSION AND ORDERS**

### **A. CONCLUSION**

The Department affirms the findings and conclusions in the Gemini Decision, as upheld by the Court, directing the Telco to unbundle its HFC network. The burden is on the Telco to prove that it is technically unfeasible to unbundle its HFC network. The Telco was unable to satisfy that burden. Therefore, the Department concludes that it is technically feasible to unbundle the Telco's HFC network subject to federal and state unbundling requirements. Accordingly, the Telco's HFC network should be unbundled

in accordance with the orders listed below. However, further negotiations between the parties are necessary before Gemini gains access to these facilities.

**B. ORDERS**

For the following Orders, please submit an original and 3 copies of the requested material, identified by Docket Number, Title and Order Number to the Executive Secretary.

1. No later than September 30, 2004, the Telco and Gemini shall file with the Department, a proposed time schedule listing the dates of the negotiation sessions and the expected topic(s) that are to be addressed during each session.
2. No later than five business days following the conclusion of each negotiation session, the Telco and Gemini shall file a brief summary indicating the topics covered and the issue(s) resolved, if any during that session.

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DECLARATORY RULING REGARDING THE  
SOUTHERN NEW ENGLAND TELEPHONE  
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- FEASIBILITY DETERMINATION**

This Decision is adopted by the following Commissioners:

Jack R. Goldberg

John W. Betkoski, III

Donald W. Downes

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Department of Public Utility Control, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.

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Louise E. Rickard  
Acting Executive Secretary  
Department of Public Utility Control

August 26, 2004  
Date