

AGREEMENT

by and between

LIGHTWAVE COMMUNICATIONS, INC.

and

**VERIZON NEW ENGLAND INC., D/B/A VERIZON MASSACHUSETTS, F/K/A NEW ENGLAND
TELEPHONE AND TELEGRAPH COMPANY, D/B/A BELL ATLANTIC - MASSACHUSETTS**

FOR THE COMMONWEALTH OF

MASSACHUSETTS

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AGREEMENT

PREFACE

This Agreement ("Agreement") shall be deemed effective as of August 7, 2002 (the "Effective Date"), between LightWave Communications, Inc. ("LightWave"), a corporation organized under the laws of the State of Delaware, with offices at 14504 Greenview Drive, Suite 302, Laurel, MD 20708 and Verizon New England Inc., d/b/a Verizon Massachusetts, f/k/a New England Telephone and Telegraph Company, d/b/a Bell Atlantic - Massachusetts ("Verizon"), a corporation organized under the laws of the State of New York with offices at 185 Franklin Street, Boston, MA 02110 (Verizon and LightWave may be referred to hereinafter, each, individually as a "Party", and, collectively, as the "Parties").

GENERAL TERMS AND CONDITIONS

In consideration of the mutual promises contained in this Agreement, and intending to be legally bound, pursuant to Section 252 of the Act, Verizon and LightWave hereby agree as follows:

1. The Agreement

- 1.1 This Agreement includes: (a) the Principal Document; (b) the Tariffs of each Party applicable to the Services that are offered for sale by it in the Principal Document (which Tariffs are incorporated into and made a part of this Agreement by reference); and, (c) an Order by a Party that has been accepted by the other Party.
- 1.2 Except as otherwise expressly provided in the Principal Document (including, but not limited to, the Pricing Attachment), conflicts among provisions in the Principal Document, Tariffs, and an Order by a Party that has been accepted by the other Party, shall be resolved in accordance with the following order of precedence, where the document identified in subsection "(a)" shall have the highest precedence: (a) the Principal Document; (b) the Tariffs; and, (c) an Order by a Party that has been accepted by the other Party. The fact that a provision appears in the Principal Document but not in a Tariff, or in a Tariff but not in the Principal Document, shall not be interpreted as, or deemed grounds for finding, a conflict for the purposes of this Section 1.2.
- 1.3 This Agreement constitutes the entire agreement between the Parties on the subject matter hereof, and supersedes any prior or contemporaneous agreement, understanding, or representation, on the subject matter hereof. Except as otherwise provisioned in the Principal Document, the Principal Document may not be waived or modified except by a written document that is signed by the Parties. Subject to the requirements of Applicable Law, a Party shall have the right to add, modify, or withdraw, its Tariff(s) at any time, without the consent of, or notice to, the other Party.

2. Term and Termination

- 2.1 This Agreement shall be effective as of the Effective Date and, unless cancelled or terminated earlier in accordance with the terms hereof, shall continue in effect until August 6, 2004 (the "Initial Term"). Thereafter, this Agreement shall continue in force and effect unless and until cancelled or terminated as provided in this Agreement.
- 2.2 Either LightWave or Verizon may terminate this Agreement effective upon the expiration of the Initial Term or effective upon any date after expiration of the

Initial Term by providing written notice of termination at least ninety (90) days in advance of the date of termination.

- 2.3 If either LightWave or Verizon provides notice of termination pursuant to Section 2.2 and on or before the proposed date of termination either LightWave or Verizon has requested negotiation of a new interconnection agreement, unless this Agreement is cancelled or terminated earlier in accordance with the terms hereof (including, but not limited to, pursuant to Section 12), this Agreement shall remain in effect until the earlier of: (a) the effective date of a new interconnection agreement between LightWave and Verizon; or, (b) the date one (1) year after the proposed date of termination.
- 2.4 If either LightWave or Verizon provides notice of termination pursuant to Section 2.2 and by 11:59 PM Eastern Time on the proposed date of termination neither LightWave nor Verizon has requested negotiation of a new interconnection agreement, (a) this Agreement will terminate at 11:59 PM Eastern Time on the proposed date of termination, and (b) the Services being provided under this Agreement at the time of termination will be terminated, except to the extent that the Purchasing Party has requested that such Services continue to be provided pursuant to an applicable Tariff or Statement of Generally Available Terms (SGAT).

3. Glossary and Attachments

The Glossary and the following Attachments are a part of this Agreement:

Additional Services Attachment
Interconnection Attachment
Resale Attachment
Network Elements Attachment
Collocation Attachment
911 Attachment
Pricing Attachment

4. Applicable Law

- 4.1 The construction, interpretation and performance of this Agreement shall be governed by (a) the laws of the United States of America and (b) the laws of the Commonwealth of Massachusetts, without regard to its conflicts of laws rules. All disputes relating to this Agreement shall be resolved through the application of such laws.
- 4.2 Each Party shall remain in compliance with Applicable Law in the course of performing this Agreement.
- 4.3 Neither Party shall be liable for any delay or failure in performance by it that results from requirements of Applicable Law, or acts or failures to act of any governmental entity or official.
- 4.4 Each Party shall promptly notify the other Party in writing of any governmental action that limits, suspends, cancels, withdraws, or otherwise materially affects, the notifying Party's ability to perform its obligations under this Agreement.
- 4.5 If any provision of this Agreement shall be invalid or unenforceable under Applicable Law, such invalidity or unenforceability shall not invalidate or render

unenforceable any other provision of this Agreement, and this Agreement shall be construed as if it did not contain such invalid or unenforceable provision; provided, that if the invalid or unenforceable provision is a material provision of this Agreement, or the invalidity or unenforceability materially affects the rights or obligations of a Party hereunder or the ability of a Party to perform any material provision of this Agreement, the Parties shall promptly renegotiate in good faith and amend in writing this Agreement in order to make such mutually acceptable revisions to this Agreement as may be required in order to conform the Agreement to Applicable Law.

- 4.6 If any legislative, regulatory, judicial or other governmental decision, order, determination or action, or any change in Applicable Law, materially affects any material provision of this Agreement, the rights or obligations of a Party hereunder, or the ability of a Party to perform any material provision of this Agreement, the Parties shall promptly renegotiate in good faith and amend in writing this Agreement in order to make such mutually acceptable revisions to this Agreement as may be required in order to conform the Agreement to Applicable Law. If within thirty (30) days of the effective date of such decision, determination, action or change, the Parties are unable to agree in writing upon mutually acceptable revisions to this Agreement, either Party may pursue any remedies available to it under this Agreement, at law, in equity, or otherwise, including, but not limited to, instituting an appropriate proceeding before the Commission, the FCC, or a court of competent jurisdiction, without first pursuing dispute resolution in accordance with Section 14 of this Agreement.
- 4.7 Notwithstanding anything in this Agreement to the contrary, if, as a result of any legislative, judicial, regulatory or other governmental decision, order, determination or action, or any change in Applicable Law, Verizon is not required by Applicable Law to provide any Service, payment or benefit, otherwise required to be provided to LightWave hereunder, then Verizon may discontinue the provision of any such Service, payment or benefit, and LightWave shall reimburse Verizon for any payment previously made by Verizon to LightWave that was not required by Applicable Law. Verizon will provide thirty (30) days prior written notice to LightWave of any such discontinuance of a Service, unless a different notice period or different conditions are specified in this Agreement (including, but not limited to, in an applicable Tariff) or Applicable Law for termination of such Service in which event such specified period and/or conditions shall apply.

5. Assignment

Neither Party may assign this Agreement or any right or interest under this Agreement, nor delegate any obligation under this Agreement, without the prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned or delayed. Any attempted assignment or delegation in violation of this Section 5 shall be void and ineffective and constitute default of this Agreement.

6. Assurance of Payment

- 6.1 Upon request by Verizon, LightWave shall provide to Verizon adequate assurance of payment of amounts due (or to become due) to Verizon hereunder.
- 6.2 Assurance of payment of charges may be requested by Verizon if LightWave (a) in Verizon's reasonable judgment, at the Effective Date or at any time thereafter, does not have established credit with Verizon, (b) in Verizon's reasonable judgment, at the Effective Date or at any time thereafter, is unable to demonstrate that it is creditworthy, (c) fails to timely pay a bill rendered to

LightWave by Verizon, or (d) admits its inability to pay its debts as such debts become due, has commenced a voluntary case (or has had a case commenced against it) under the U.S. Bankruptcy Code or any other law relating to bankruptcy, insolvency, reorganization, winding-up, composition or adjustment of debts or the like, has made an assignment for the benefit of creditors or is subject to a receivership or similar proceeding.

- 6.3 Unless otherwise agreed by the Parties, the assurance of payment shall, at Verizon's option, consist of (a) a cash security deposit in U.S. dollars held by Verizon or (b) an unconditional, irrevocable standby letter of credit naming Verizon as the beneficiary thereof and otherwise in form and substance satisfactory to Verizon from a financial institution acceptable to Verizon. The cash security deposit or letter of credit shall be in an amount equal to two (2) months anticipated charges (including, but not limited to, both recurring and non-recurring charges), as reasonably determined by Verizon, for the Services to be provided by Verizon to LightWave in connection with this Agreement.
- 6.4 To the extent that Verizon elects to require a cash deposit, the Parties intend that the provision of such deposit shall constitute the grant of a security interest in the deposit pursuant to Article 9 of the Uniform Commercial Code as in effect in any relevant jurisdiction.
- 6.5 If payment of interest on a cash deposit is required by an applicable Verizon Tariff or by Applicable Law, interest will be paid on any such cash deposit held by Verizon at the higher of the interest rate stated in such Tariff or the interest rate required by Applicable Law.
- 6.6 Verizon may (but is not obligated to) draw on the letter of credit or cash deposit, as applicable, upon notice to LightWave in respect of any amounts to be paid by LightWave hereunder that are not paid within thirty (30) days of the date that payment of such amounts is required by this Agreement.
- 6.7 If Verizon draws on the letter of credit or cash deposit, upon request by Verizon, LightWave shall provide a replacement or supplemental letter of credit or cash deposit conforming to the requirements of Section 6.2.
- 6.8 Notwithstanding anything else set forth in this Agreement, if Verizon makes a request for assurance of payment in accordance with the terms of this Section, then Verizon shall have no obligation thereafter to perform under this Agreement until such time as LightWave has provided Verizon with such assurance of payment.
- 6.9 The fact that a deposit or a letter of credit is requested by Verizon hereunder shall in no way relieve LightWave from compliance with the requirements of this Agreement (including, but not limited to, any applicable Tariffs) as to advance payments and payment for Services, nor constitute a waiver or modification of the terms herein pertaining to the discontinuance of Services for nonpayment of any amounts payment of which is required by this Agreement.

7. Audits

- 7.1 Except as may be otherwise specifically provided in this Agreement, either Party ("Auditing Party") may audit the other Party's ("Audited Party") books, records, documents, facilities and systems for the purpose of evaluating the accuracy of the Audited Party's bills. Such audits may be performed once in each Calendar Year; provided, however, that audits may be conducted more frequently (but no more frequently than once in each Calendar Quarter) if the immediately

preceding audit found previously uncorrected net inaccuracies in billing in favor of the Audited Party having an aggregate value of at least \$1,000,000.

- 7.2 The audit shall be performed by independent certified public accountants selected and paid by the Auditing Party. The accountants shall be reasonably acceptable to the Audited Party. Prior to commencing the audit, the accountants shall execute an agreement with the Audited Party in a form reasonably acceptable to the Audited Party that protects the confidentiality of the information disclosed by the Audited Party to the accountants. The audit shall take place at a time and place agreed upon by the Parties; provided, that the Auditing Party may require that the audit commence no later than sixty (60) days after the Auditing Party has given notice of the audit to the Audited Party.
- 7.3 Each Party shall cooperate fully in any such audit, providing reasonable access to any and all employees, books, records, documents, facilities and systems, reasonably necessary to assess the accuracy of the Audited Party's bills.
- 7.4 Audits shall be performed at the Auditing Party's expense, provided that there shall be no charge for reasonable access to the Audited Party's employees, books, records, documents, facilities and systems necessary to assess the accuracy of the Audited Party's bills.

8. Authorization

- 8.1 Verizon represents and warrants that it is a corporation duly organized, validly existing and in good standing under the laws of the State of New York and has full power and authority to execute and deliver this Agreement and to perform its obligations under this Agreement.
- 8.2 LightWave represents and warrants that it is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware, and has full power and authority to execute and deliver this Agreement and to perform its obligations under this Agreement.
- 8.3 LightWave Certification.

Notwithstanding any other provision of this Agreement, Verizon shall have no obligation to perform under this Agreement until such time as LightWave has obtained such FCC and Commission authorization as may be required by Applicable Law for conducting business in Massachusetts. LightWave shall not place any orders under this Agreement until it has obtained such authorization. LightWave shall provide proof of such authorization to Verizon upon request.

9. Billing and Payment; Disputed Amounts

- 9.1 Except as otherwise provided in this Agreement, each Party shall submit to the other Party on a monthly basis in an itemized form, statement(s) of charges incurred by the other Party under this Agreement.
- 9.2 Except as otherwise provided in this Agreement, payment of amounts billed for Services provided under this Agreement, whether billed on a monthly basis or as otherwise provided in this Agreement, shall be due, in immediately available U.S. funds, on the later of the following dates (the "Due Date"): (a) the due date specified on the billing Party's statement; or (b) twenty (20) days after the date the statement is received by the billed Party. Payments shall be transmitted by electronic funds transfer.

- 9.3 If any portion of an amount billed by a Party under this Agreement is subject to a good faith dispute between the Parties, the billed Party shall give notice to the billing Party of the amounts it disputes ("Disputed Amounts") and include in such notice the specific details and reasons for disputing each item. A Party may also dispute prospectively with a single notice a class of charges that it disputes. Notice of a dispute may be given by a Party at any time, either before or after an amount is paid, and a Party's payment of an amount shall not constitute a waiver of such Party's right to subsequently dispute its obligation to pay such amount or to seek a refund of any amount paid. The billed Party shall pay by the Due Date all undisputed amounts. Billing disputes shall be subject to the terms of Section 14, Dispute Resolution.
- 9.4 Charges due to the billing Party that are not paid by the Due Date, shall be subject to a late payment charge. The late payment charge shall be in an amount specified by the billing Party which shall not exceed a rate of one-and-one-half percent (1.5%) of the overdue amount (including any unpaid previously billed late payment charges) per month.
- 9.5 Although it is the intent of both Parties to submit timely statements of charges, failure by either Party to present statements to the other Party in a timely manner shall not constitute a breach or default, or a waiver of the right to payment of the incurred charges, by the billing Party under this Agreement, and, except for assertion of a provision of Applicable Law that limits the period in which a suit or other proceeding can be brought before a court or other governmental entity of appropriate jurisdiction to collect amounts due, the billed Party shall not be entitled to dispute the billing Party's statement(s) based on the billing Party's failure to submit them in a timely fashion.

10. Confidentiality

- 10.1 As used in this Section 10, "Confidential Information" means the following information that is disclosed by one Party ("Disclosing Party") to the other Party ("Receiving Party") in connection with, or anticipation of, this Agreement:
- 10.1.1 Books, records, documents and other information disclosed in an audit pursuant to Section 7;
 - 10.1.2 Any forecasting information provided pursuant to this Agreement;
 - 10.1.3 Customer Information (except to the extent that (a) the Customer information is published in a directory, (b) the Customer information is disclosed through or in the course of furnishing a Telecommunications Service, such as a Directory Assistance Service, Operator Service, Caller ID or similar service, or LIDB service, or (c) the Customer to whom the Customer Information is related has authorized the Receiving Party to use and/or disclose the Customer Information);
 - 10.1.4 information related to specific facilities or equipment (including, but not limited to, cable and pair information);
 - 10.1.5 any information that is in written, graphic, electromagnetic, or other tangible form, and marked at the time of disclosure as "Confidential" or "Proprietary;" and
 - 10.1.6 any information that is communicated orally or visually and declared to the Receiving Party at the time of disclosure, and by written notice with

a statement of the information given to the Receiving Party within ten (10) days after disclosure, to be "Confidential or "Proprietary".

Notwithstanding any other provision of this Agreement, a Party shall have the right to refuse to accept receipt of information which the other Party has identified as Confidential Information pursuant to Sections 10.1.5 or 10.1.6.

10.2 Except as otherwise provided in this Agreement, the Receiving Party shall:

10.2.1 use the Confidential Information received from the Disclosing Party only in performance of this Agreement; and

10.2.2 using the same degree of care that it uses with similar confidential information of its own (but in no case a degree of care that is less than commercially reasonable), hold Confidential Information received from the Disclosing Party in confidence and restrict disclosure of the Confidential Information solely to those of the Receiving Party's Affiliates and the directors, officers, employees, Agents and contractors of the Receiving Party and the Receiving Party's Affiliates, that have a need to receive such Confidential Information in order to perform the Receiving Party's obligations under this Agreement. The Receiving Party's Affiliates and the directors, officers, employees, Agents and contractors of the Receiving Party and the Receiving Party's Affiliates, shall be required by the Receiving Party to comply with the provisions of this Section 10 in the same manner as the Receiving Party. The Receiving Party shall be liable for any failure of the Receiving Party's Affiliates or the directors, officers, employees, Agents or contractors of the Receiving Party or the Receiving Party's Affiliates, to comply with the provisions of this Section 10.

10.3 The Receiving Party shall return or destroy all Confidential Information received from the Disclosing Party, including any copies made by the Receiving Party, within thirty (30) days after a written request by the Disclosing Party is delivered to the Receiving Party, except for (a) Confidential Information that the Receiving Party reasonably requires to perform its obligations under this Agreement, and (b) one copy for archival purposes only.

10.4 Unless otherwise agreed, the obligations of Sections 10.2 and 10.3 do not apply to information that:

10.4.1 was, at the time of receipt, already in the possession of or known to the Receiving Party free of any obligation of confidentiality and restriction on use;

10.4.2 is or becomes publicly available or known through no wrongful act of the Receiving Party, the Receiving Party's Affiliates, or the directors, officers, employees, Agents or contractors of the Receiving Party or the Receiving Party's Affiliates;

10.4.3 is rightfully received from a third person having no direct or indirect obligation of confidentiality or restriction on use to the Disclosing Party with respect to such information;

10.4.4 is independently developed by the Receiving Party;

10.4.5 is approved for disclosure or use by written authorization of the Disclosing Party (including, but not limited to, in this Agreement); or

10.4.6 is required to be disclosed by the Receiving Party pursuant to Applicable Law, provided that the Receiving Party shall have made commercially reasonable efforts to give adequate notice of the requirement to the Disclosing Party in order to enable the Disclosing Party to seek protective arrangements.

- 10.5 Notwithstanding the provisions of Sections 10.1 through 10.4, the Receiving Party may use and disclose Confidential Information received from the Disclosing Party to the extent necessary to enforce the Receiving Party's rights under this Agreement or Applicable Law. In making any such disclosure, the Receiving Party shall make reasonable efforts to preserve the confidentiality and restrict the use of the Confidential Information while it is in the possession of any person to whom it is disclosed, including, but not limited to, by requesting any governmental entity to whom the Confidential Information is disclosed to treat it as confidential and restrict its use to purposes related to the proceeding pending before it.
- 10.6 The Disclosing Party shall retain all of the Disclosing Party's right, title and interest in any Confidential Information disclosed by the Disclosing Party to the Receiving Party. Except as otherwise expressly provided in this Agreement, no license is granted by this Agreement with respect to any Confidential Information (including, but not limited to, under any patent, trademark or copyright), nor is any such license to be implied solely by virtue of the disclosure of Confidential Information.
- 10.7 The provisions of this Section 10 shall be in addition to and not in derogation of any provisions of Applicable Law, including, but not limited to, 47 U.S.C. § 222, and are not intended to constitute a waiver by a Party of any right with regard to the use, or protection of the confidentiality of, CPNI provided by Applicable Law.
- 10.8 Each Party's obligations under this Section 10 shall survive expiration, cancellation or termination of this Agreement.

11. Counterparts

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

12. Default

If either Party ("Defaulting Party") fails to make a payment required by this Agreement (including, but not limited to, any payment required by Section 9.3 of undisputed amounts to the billing Party) or materially breaches any other material provision of this Agreement, and such failure or breach continues for thirty (30) days after written notice thereof from the other Party, the other Party may, by written notice to the Defaulting Party, (a) suspend the provision of any or all Services hereunder, or (b) cancel this Agreement and terminate the provision of all Services hereunder.

13. Discontinuance of Service by LightWave

- 13.1 If LightWave proposes to discontinue, or actually discontinues, its provision of service to all or substantially all of its Customers, whether voluntarily, as a result of bankruptcy, or for any other reason, LightWave shall send written notice of such discontinuance to Verizon, the Commission, and each of LightWave's Customers. LightWave shall provide such notice such number of days in advance of discontinuance of its service as shall be required by Applicable Law.

Unless the period for advance notice of discontinuance of service required by Applicable Law is more than thirty (30) days, to the extent commercially feasible, LightWave shall send such notice at least thirty (30) days prior to its discontinuance of service.

- 13.2 Such notice must advise each LightWave Customer that unless action is taken by the LightWave Customer to switch to a different carrier prior to LightWave's proposed discontinuance of service, the LightWave Customer will be without the service provided by LightWave to the LightWave Customer.
- 13.3 Should a LightWave Customer subsequently become a Verizon Customer, LightWave shall provide Verizon with all information necessary for Verizon to establish service for the LightWave Customer, including, but not limited to, the LightWave Customer's billed name, listed name, service address, and billing address, and the services being provided to the LightWave Customer.
- 13.4 Nothing in this Section 13 shall limit Verizon's right to cancel or terminate this Agreement or suspend provision of Services under this Agreement.

14. Dispute Resolution

- 14.1 Except as otherwise provided in this Agreement, any dispute between the Parties regarding the interpretation or enforcement of this Agreement or any of its terms shall be addressed by good faith negotiation between the Parties. To initiate such negotiation, a Party must provide to the other Party written notice of the dispute that includes both a detailed description of the dispute or alleged nonperformance and the name of an individual who will serve as the initiating Party's representative in the negotiation. The other Party shall have ten Business Days to designate its own representative in the negotiation. The Parties' representatives shall meet at least once within 45 days after the date of the initiating Party's written notice in an attempt to reach a good faith resolution of the dispute. Upon agreement, the Parties' representatives may utilize other alternative dispute resolution procedures such as private mediation to assist in the negotiations.
- 14.2 If the Parties have been unable to resolve the dispute within 45 days of the date of the initiating Party's written notice, either Party may pursue any remedies available to it under this Agreement, at law, in equity, or otherwise, including, but not limited to, instituting an appropriate proceeding before the Commission, the FCC, or a court of competent jurisdiction.

15. Force Majeure

- 15.1 Neither Party shall be responsible for any delay or failure in performance which results from causes beyond its reasonable control ("Force Majeure Events"), whether or not foreseeable by such Party. Such Force Majeure Events include, but are not limited to, adverse weather conditions, flood, fire, explosion, earthquake, volcanic action, power failure, embargo, boycott, war, revolution, civil commotion, act of public enemies, labor unrest (including, but not limited to, strikes, work stoppages, slowdowns, picketing or boycotts), inability to obtain equipment, parts, software or repairs thereof, acts or omissions of the other Party, and acts of God.
- 15.2 If a Force Majeure Event occurs, the non-performing Party shall give prompt notification of its inability to perform to the other Party. During the period that the non-performing Party is unable to perform, the other Party shall also be excused from performance of its obligations to the extent such obligations are reciprocal

to, or depend upon, the performance of the non-performing Party that has been prevented by the Force Majeure Event. The non-performing Party shall use commercially reasonable efforts to avoid or remove the cause(s) of its non-performance and both Parties shall proceed to perform once the cause(s) are removed or cease.

- 15.3 Notwithstanding the provisions of Sections 15.1 and 15.2, in no case shall a Force Majeure Event excuse either Party from an obligation to pay money as required by this Agreement.
- 15.4 Nothing in this Agreement shall require the non-performing Party to settle any labor dispute except as the non-performing Party, in its sole discretion, determines appropriate.

16. Forecasts

In addition to any other forecasts required by this Agreement, upon request by Verizon, LightWave shall provide to Verizon forecasts regarding the Services that LightWave expects to purchase from Verizon, including, but not limited to, forecasts regarding the types and volumes of Services that LightWave expects to purchase and the locations where such Services will be purchased.

17. Fraud

LightWave assumes responsibility for all fraud associated with its Customers and accounts. Verizon shall bear no responsibility for, and shall have no obligation to investigate or make adjustments to LightWave's account in cases of, fraud by LightWave's Customers or other third parties.

18. Good Faith Performance

The Parties shall act in good faith in their performance of this Agreement. Except as otherwise expressly stated in this Agreement (including, but not limited to, where consent, approval, agreement or a similar action is stated to be within a Party's sole discretion), where consent, approval, mutual agreement or a similar action is required by any provision of this Agreement, such action shall not be unreasonably withheld, conditioned or delayed.

19. Headings

The headings used in the Principal Document are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning of the Principal Document.

20. Indemnification

- 20.1 Each Party ("Indemnifying Party") shall indemnify, defend and hold harmless the other Party ("Indemnified Party"), the Indemnified Party's Affiliates, and the directors, officers and employees of the Indemnified Party and the Indemnified Party's Affiliates, from and against any and all Claims that arise out of bodily injury to or death of any person, or damage to, or destruction or loss of, tangible real and/or personal property of any person, to the extent such injury, death, damage, destruction or loss, was proximately caused by the grossly negligent or intentionally wrongful acts or omissions of the Indemnifying Party, the Indemnifying Party's Affiliates, or the directors, officers, employees, Agents or contractors (excluding the Indemnified Party) of the Indemnifying Party or the Indemnifying Party's Affiliates, in connection with this Agreement.

20.2 Indemnification Process.

20.2.1 As used in this Section 20, "Indemnified Person" means a person whom an Indemnifying Party is obligated to indemnify, defend and/or hold harmless under Section 20.1.

20.2.2 An Indemnifying Party's obligations under Section 20.1 shall be conditioned upon the following:

20.2.3 The Indemnified Person: (a) shall give the Indemnifying Party notice of the Claim promptly after becoming aware thereof (including a statement of facts known to the Indemnified Person related to the Claim and an estimate of the amount thereof); (b) prior to taking any material action with respect to a Third Party Claim, shall consult with the Indemnifying Party as to the procedure to be followed in defending, settling, or compromising the Claim; (c) shall not consent to any settlement or compromise of a Third Party Claim without the written consent of the Indemnifying Party; (d) shall permit the Indemnifying Party to assume the defense of a Third Party Claim (including, except as provided below, the compromise or settlement thereof) at the Indemnifying Party's own cost and expense, provided, however, that the Indemnified Person shall have the right to approve the Indemnifying Party's choice of legal counsel.

20.2.4 If the Indemnified Person fails to comply with Section 20.2.3 with respect to a Claim, to the extent such failure shall have a material adverse effect upon the Indemnifying Party, the Indemnifying Party shall be relieved of its obligation to indemnify, defend and hold harmless the Indemnified Person with respect to such Claim under this Agreement.

20.2.5 Subject to 20.2.6 and 20.2.7, below, the Indemnifying Party shall have the authority to defend and settle any Third Party Claim.

20.2.6 With respect to any Third Party Claim, the Indemnified Person shall be entitled to participate with the Indemnifying Party in the defense of the Claim if the Claim requests equitable relief or other relief that could affect the rights of the Indemnified Person. In so participating, the Indemnified Person shall be entitled to employ separate counsel for the defense at the Indemnified Person's expense. The Indemnified Person shall also be entitled to participate, at its own expense, in the defense of any Claim, as to any portion of the Claim as to which it is not entitled to be indemnified, defended and held harmless by the Indemnifying Party.

20.2.7 In no event shall the Indemnifying Party settle a Third Party Claim or consent to any judgment with regard to a Third Party Claim without the prior written consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned or delayed. In the event the settlement or judgment requires a contribution from or affects the rights of an Indemnified Person, the Indemnified Person shall have the right to refuse such settlement or judgment with respect to itself and, at its own cost and expense, take over the defense against the Third Party Claim, provided that in such event the Indemnifying Party shall not be responsible for, nor shall it be obligated to indemnify or hold harmless the Indemnified Person against, the Third Party Claim for any amount in excess of such refused settlement or judgment.

20.2.8 The Indemnified Person shall, in all cases, assert any and all provisions in applicable Tariffs and Customer contracts that limit liability to third persons as a bar to, or limitation on, any recovery by a third-person claimant.

20.2.9 The Indemnifying Party and the Indemnified Person shall offer each other all reasonable cooperation and assistance in the defense of any Third Party Claim.

20.3 Each Party agrees that it will not implead or bring any action against the other Party, the other Party's Affiliates, or any of the directors, officers or employees of the other Party or the other Party's Affiliates, based on any claim by any person for personal injury or death that occurs in the course or scope of employment of such person by the other Party or the other Party's Affiliate and that arises out of performance of this Agreement.

20.4 Each Party's obligations under this Section 20 shall survive expiration, cancellation or termination of this Agreement.

21. Insurance

21.1 LightWave shall maintain during the term of this Agreement and for a period of two years thereafter all insurance and/or bonds required to satisfy its obligations under this Agreement (including, but not limited to, its obligations set forth in Section 20 hereof) and all insurance and/or bonds required by Applicable Law. The insurance and/or bonds shall be obtained from an insurer having an A.M. Best insurance rating of at least A-, financial size category VII or greater. At a minimum and without limiting the foregoing undertaking, LightWave shall maintain the following insurance:

21.1.1 Commercial General Liability Insurance, on an occurrence basis, including but not limited to, premises-operations, broad form property damage, products/completed operations, contractual liability, independent contractors, and personal injury, with limits of at least \$2,000,000 combined single limit for each occurrence.

21.1.2 Commercial Motor Vehicle Liability Insurance covering all owned, hired and non-owned vehicles, with limits of at least \$2,000,000 combined single limit for each occurrence.

21.1.3 Excess Liability Insurance, in the umbrella form, with limits of at least \$10,000,000 combined single limit for each occurrence.

21.1.4 Worker's Compensation Insurance as required by Applicable Law and Employer's Liability Insurance with limits of not less than \$2,000,000 per occurrence.

21.1.5 All risk property insurance on a full replacement cost basis for all of LightWave's real and personal property located at any Collocation site or otherwise located on or in any Verizon premises (whether owned, leased or otherwise occupied by Verizon), facility, equipment or right-of-way.

21.2 Any deductibles, self-insured retentions or loss limits ("Retentions") for the foregoing insurance must be disclosed on the certificates of insurance to be provided to Verizon pursuant to Sections 21.4 and 21.5, and Verizon reserves

the right to reject any such Retentions in its reasonable discretion. All Retentions shall be the responsibility of LightWave.

- 21.3 LightWave shall name Verizon and Verizon's Affiliates as additional insureds on the foregoing liability insurance.
- 21.4 LightWave shall, within two (2) weeks of the Effective Date hereof at the time of each renewal of, or material change in, LightWave's insurance policies, and at such other times as Verizon may reasonably specify, furnish certificates or other proof of the foregoing insurance reasonably acceptable to Verizon. The certificates or other proof of the foregoing insurance shall be sent to: Director - Contract Performance & Administration, Verizon Wholesale Markets, 600 Hidden Ridge, HQEWMNOTICES, Irving, TX 75038.
- 21.5 LightWave shall require its contractors, if any, that may enter upon the premises or access the facilities or equipment of Verizon or Verizon's affiliates to maintain insurance in accordance with Sections 21.1 through 21.3 and, if requested, to furnish Verizon certificates or other adequate proof of such insurance acceptable to Verizon in accordance with Section 21.4
- 21.6 If LightWave or LightWave's contractors fail to maintain insurance as required in Sections 21.1 through 21.5, above, Verizon may (but shall not be obligated to) purchase such insurance and LightWave shall reimburse Verizon for the cost of the insurance.
- 21.7 Certificates furnished by LightWave or LightWave's contractors shall contain a clause stating: "Verizon New England Inc., d/b/a Verizon Massachusetts, f/k/a New England Telephone and Telegraph Company, d/b/a Bell Atlantic - Massachusetts shall be notified in writing at least thirty (30) days prior to cancellation of, or any material change in, the insurance."

22. Intellectual Property

- 22.1 Except as expressly stated in this Agreement, this Agreement shall not be construed as granting a license with respect to any patent, copyright, trade name, trademark, service mark, trade secret or any other intellectual property, now or hereafter owned, controlled or licensable by either Party. Except as expressly stated in this Agreement, neither Party may use any patent, copyrightable materials, trademark, trade name, trade secret or other intellectual property right, of the other Party except in accordance with the terms of a separate license agreement between the Parties granting such rights.
- 22.2 Except as stated in Section 22.4, neither Party shall have any obligation to defend, indemnify or hold harmless, or acquire any license or right for the benefit of, or owe any other obligation or have any liability to, the other Party or its Affiliates or Customers based on or arising from any Third Party Claim alleging or asserting that the provision or use of any service, facility, arrangement, or software by either Party under this Agreement, or the performance of any service or method, either alone or in combination with the other Party, constitutes direct, vicarious or contributory infringement or inducement to infringe, or misuse or misappropriation of any patent, copyright, trademark, trade secret, or any other proprietary or intellectual property right of any Party or third person. Each Party, however, shall offer to the other reasonable cooperation and assistance in the defense of any such claim.
- 22.3 NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, THE PARTIES AGREE THAT NEITHER PARTY HAS MADE, AND THAT THERE

DOES NOT EXIST, ANY WARRANTY, EXPRESS OR IMPLIED, THAT THE USE BY EACH PARTY OF THE OTHER'S SERVICES PROVIDED UNDER THIS AGREEMENT SHALL NOT GIVE RISE TO A CLAIM OF INFRINGEMENT, MISUSE, OR MISAPPROPRIATION OF ANY INTELLECTUAL PROPERTY RIGHT.

- 22.4 LightWave agrees that the Services provided by Verizon hereunder shall be subject to the terms, conditions and restrictions contained in any applicable agreements (including, but not limited to software or other intellectual property license agreements) between Verizon and Verizon's vendors. Verizon agrees to advise LightWave, directly or through a third party, of any such terms, conditions or restrictions that may limit any LightWave use of a Service provided by Verizon that is otherwise permitted by this Agreement. At LightWave's written request, to the extent required by Applicable Law, Verizon will use Verizon's best efforts, as commercially practicable, to obtain intellectual property rights from Verizon's vendor to allow LightWave to use the Service in the same manner as Verizon that are coextensive with Verizon's intellectual property rights, on terms and conditions that are equal in quality to the terms and conditions under which Verizon has obtained Verizon's intellectual property rights. LightWave shall reimburse Verizon for the cost of obtaining such rights.

23. Joint Work Product

The Principal Document is the joint work product of the Parties, has been negotiated by the Parties, and shall be fairly interpreted in accordance with its terms. In the event of any ambiguities, no inferences shall be drawn against either Party.

24. Law Enforcement

- 24.1 Each Party may cooperate with law enforcement authorities and national security authorities to the full extent required or permitted by Applicable Law in matters related to Services provided by it under this Agreement, including, but not limited to, the production of records, the establishment of new lines or the installation of new services on an existing line in order to support law enforcement and/or national security operations, and, the installation of wiretaps, trap-and-trace facilities and equipment, and dialed number recording facilities and equipment.
- 24.2 A Party shall not have the obligation to inform the other Party or the Customers of the other Party of actions taken in cooperating with law enforcement or national security authorities, except to the extent required by Applicable Law.
- 24.3 Where a law enforcement or national security request relates to the establishment of lines (including, but not limited to, lines established to support interception of communications on other lines), or the installation of other services, facilities or arrangements, a Party may act to prevent the other Party from obtaining access to information concerning such lines, services, facilities and arrangements, through operations support system interfaces.

25. Liability

- 25.1 As used in this Section 25, "Service Failure" means a failure to comply with a direction to install, restore or terminate Services under this Agreement, a failure to provide Services under this Agreement, and failures, mistakes, omissions, interruptions, delays, errors, defects or the like, occurring in the course of the provision of any Services under this Agreement.

- 25.2 Except as otherwise stated in Section 25.5, the liability, if any, of a Party, a Party's Affiliates, and the directors, officers and employees of a Party and a Party's Affiliates, to the other Party, the other Party's Customers, and to any other person, for Claims arising out of a Service Failure shall not exceed an amount equal to the pro rata applicable monthly charge for the Services that are subject to the Service Failure for the period in which such Service Failure occurs.
- 25.3 Except as otherwise stated in Section 25.5, a Party, a Party's Affiliates, and the directors, officers and employees of a Party and a Party's Affiliates, shall not be liable to the other Party, the other Party's Customers, or to any other person, in connection with this Agreement (including, but not limited to, in connection with a Service Failure or any breach, delay or failure in performance, of this Agreement) for special, indirect, incidental, consequential, reliance, exemplary, punitive, or like damages, including, but not limited to, damages for lost revenues, profits or savings, or other commercial or economic loss, even if the person whose liability is excluded by this Section has been advised of the possibility of such damages.
- 25.4 The limitations and exclusions of liability stated in Sections 25.1 through 25.3 shall apply regardless of the form of a claim or action, whether statutory, in contract, warranty, strict liability, tort (including, but not limited to, negligence of a Party), or otherwise.
- 25.5 Nothing contained in Sections 25.1 through 25.4 shall exclude or limit liability:
- 25.5.1 under Sections 20, Indemnification, or 41, Taxes.
 - 25.5.2 for any obligation to indemnify, defend and/or hold harmless that a Party may have under this Agreement.
 - 25.5.3 for damages arising out of or resulting from bodily injury to or death of any person, or damage to, or destruction or loss of, tangible real and/or personal property of any person, or Toxic or Hazardous Substances, to the extent such damages are otherwise recoverable under Applicable Law;
 - 25.5.4 for a claim for infringement of any patent, copyright, trade name, trade mark, service mark, or other intellectual property interest;
 - 25.5.5 under Section 258 of the Act or any order of FCC or the Commission implementing Section 258; or
 - 25.5.6 under the financial incentive or remedy provisions of any service quality plan required by the FCC or the Commission.
- 25.6 In the event that the liability of a Party, a Party's Affiliate, or a director, officer or employee of a Party or a Party's Affiliate, is limited and/or excluded under both this Section 25 and a provision of an applicable Tariff, the liability of the Party or other person shall be limited to the smaller of the amounts for which such Party or other person would be liable under this Section or the Tariff provision.
- 25.7 Each Party shall, in its tariffs and other contracts with its Customers, provide that in no case shall the other Party, the other Party's Affiliates, or the directors, officers or employees of the other Party or the other Party's Affiliates, be liable to such Customers or other third-persons for any special, indirect, incidental, consequential, reliance, exemplary, punitive or other damages, arising out of a Service Failure.

26. Network Management

- 26.1 Cooperation. The Parties will work cooperatively in a commercially reasonable manner to install and maintain a reliable network. LightWave and Verizon will exchange appropriate information (e.g., network information, maintenance contact numbers, escalation procedures, and information required to comply with requirements of law enforcement and national security agencies) to achieve this desired reliability. In addition, the Parties will work cooperatively in a commercially reasonable manner to apply sound network management principles to alleviate or to prevent traffic congestion and subject to Section 17, to minimize fraud associated with third number billed calls, calling card calls, and other services related to this Agreement.
- 26.2 Responsibility for Following Standards. Each Party recognizes a responsibility to follow the standards that may be agreed to between the Parties and to employ characteristics and methods of operation that will not interfere with or impair the service, network or facilities of the other Party or any third parties connected with or involved directly in the network or facilities of the other.
- 26.3 Interference or Impairment. If a Party ("Impaired Party") reasonably determines that the services, network, facilities, or methods of operation, of the other Party ("Interfering Party") will or are likely to interfere with or impair the Impaired Party's provision of services or the operation of the Impaired Party's network or facilities, the Impaired Party may interrupt or suspend any Service provided to the Interfering Party to the extent necessary to prevent such interference or impairment, subject to the following:
- 26.3.1 Except in emergency situations (e.g., situations involving a risk of bodily injury to persons or damage to tangible property, or an interruption in Customer service) or as otherwise provided in this Agreement, the Impaired Party shall have given the Interfering Party at least ten (10) days' prior written notice of the interference or impairment or potential interference or impairment and the need to correct the condition within said time period; and,
- 26.3.2 Upon correction of the interference or impairment, the Impaired Party will promptly restore the interrupted or suspended Service. The Impaired Party shall not be obligated to provide an out-of-service credit allowance or other compensation to the Interfering Party in connection with the suspended Service.
- 26.4 Outage Repair Standard. In the event of an outage or trouble in any Service being provided by a Party hereunder, the Providing Party will follow Verizon's standard procedures for isolating and clearing the outage or trouble.

27. Non-Exclusive Remedies

Except as otherwise expressly provided in this Agreement, each of the remedies provided under this Agreement is cumulative and is in addition to any other remedies that may be available under this Agreement or at law or in equity.

28. Notice of Network Changes

If a Party makes a change in the information necessary for the transmission and routing of services using that Party's facilities or network, or any other change in its facilities or network that will materially affect the interoperability of its facilities or network with the other Party's facilities or network, the Party making the change shall publish notice of the

change at least ninety (90) days in advance of such change, and shall use reasonable efforts, as commercially practicable, to publish such notice at least one hundred eighty (180) days in advance of the change; provided, however, that if an earlier publication of notice of a change is required by Applicable Law (including, but not limited to, 47 CFR 51.325 through 51.335) notice shall be given at the time required by Applicable Law.

29. Notices

29.1 Except as otherwise provided in this Agreement, notices given by one Party to the other Party under this Agreement:

29.1.1 shall be in writing;

29.1.2 shall be delivered (a) personally, (b) by express delivery service with next Business Day delivery, (c) by First Class, certified or registered U.S. mail, postage prepaid, or (d) by facsimile telecopy, with a copy delivered in accordance with (a), (b) or (c), preceding; and

29.1.3 shall be delivered to the following addresses of the Parties:

To LightWave:

Corporation Service Company
2711 Centerville Road
Suite 400
Wilmington, DE 19808

To Verizon:

Director-Contract Performance & Administration
Verizon Wholesale Markets
600 Hidden Ridge
HQEWMNOTICES
Irving, TX 75038
Telephone Number: 972-718-5988
Facsimile Number: 972-719-1519
Internet Address: wmnotices@verizon.com

with a copy to:

Vice President and Associate General Counsel
Verizon Wholesale Markets
1515 North Court House Road
Suite 500
Arlington, VA 22201
Facsimile: 703-351-3664

or to such other address as either Party shall designate by proper notice.

Notices will be deemed given as of the earlier of (a) where there is personal delivery of the notice, the date of actual receipt, (b) where the notice is sent via express delivery service for next Business Day delivery, the next Business Day after the notice is sent, (c) where the notice is sent via First Class U.S. Mail, three (3) Business Days after mailing, (d) where notice is sent via certified or registered U.S. mail, the date of receipt shown on the Postal Service receipt, and (e) where the notice is sent via facsimile telecopy, if the notice is sent on a

Business Day and before 5 PM. in the time zone where it is received, on the date set forth on the telecopy confirmation, or if the notice is sent on a non-Business Day or if the notice is sent after 5 PM in the time zone where it is received, the next Business Day after the date set forth on the telecopy confirmation.

30. Ordering and Maintenance

LightWave shall use Verizon's electronic Operations Support System access platforms to submit Orders and requests for maintenance and repair of Services, and to engage in other pre-ordering, ordering, provisioning, maintenance and repair transactions. If Verizon has not yet deployed an electronic capability for LightWave to perform a pre-ordering, ordering, provisioning, maintenance or repair, transaction offered by Verizon, LightWave shall use such other processes as Verizon has made available for performing such transaction (including, but not limited, to submission of Orders by telephonic facsimile transmission and placing trouble reports by voice telephone transmission).

31. Performance Standards

- 31.1 Verizon shall provide Services under this Agreement in accordance with the performance standards required by Applicable Law, including, but not limited to, Section 251(c) of the Act.
- 31.2 To the extent required by Appendix D, Section V, "Carrier-to-Carrier Performance Plan (Including Performance Measurements)," and Appendix D, Attachment A, "Carrier-to-Carrier Performance Assurance Plan," of the Merger Order, Verizon shall provide performance measurement results to LightWave.
- 31.3 LightWave shall provide Services under this Agreement in accordance with the performance standards required by Applicable Law.

32. Point of Contact for LightWave Customers

- 32.1 LightWave shall establish telephone numbers and mailing addresses at which LightWave Customers may communicate with LightWave and shall advise LightWave Customers of these telephone numbers and mailing addresses.
- 32.2 Except as otherwise agreed to by Verizon, Verizon shall have no obligation, and may decline, to accept a communication from a LightWave Customer, including, but not limited to, a LightWave Customer request for repair or maintenance of a Verizon Service provided to LightWave.

33. Predecessor Agreements

- 33.1 Except as stated in Section 33.2 or as otherwise agreed in writing by the Parties:
 - 33.1.1 any prior interconnection or resale agreement between the Parties for the Commonwealth of Massachusetts pursuant to Section 252 of the Act and in effect immediately prior to the Effective Date is hereby terminated; and
 - 33.1.2 any Services that were purchased by one Party from the other Party under a prior interconnection or resale agreement between the Parties for the Commonwealth of Massachusetts pursuant to Section 252 of the Act and in effect immediately prior to the Effective Date, shall as of the Effective Date be subject to and purchased under this Agreement.
- 33.2 Except as otherwise agreed in writing by the Parties, if a Service purchased by a Party under a prior interconnection or resale agreement between the Parties

pursuant to Section 252 of the Act was subject to a contractual commitment that it would be purchased for a period of longer than one month, and such period had not yet expired as of the Effective Date and the Service had not been terminated prior to the Effective Date, to the extent not inconsistent with this Agreement, such commitment shall remain in effect and the Service will be purchased under this Agreement; provided, that if this Agreement would materially alter the terms of the commitment, either Party may elect to cancel the commitment.

- 33.3 If either Party elects to cancel the commitment pursuant to the proviso in Section 33.2, the Purchasing Party shall not be liable for any termination charge that would otherwise have applied. However, if the commitment was cancelled by the Purchasing Party, the Providing Party shall be entitled to payment from the Purchasing Party of the difference between the price of the Service that was actually paid by the Purchasing Party under the commitment and the price of the Service that would have applied if the commitment had been to purchase the Service only until the time that the commitment was cancelled.

34. Publicity and Use of Trademarks or Service Marks

- 34.1 A Party, its Affiliates, and their respective contractors and Agents, shall not use the other Party's trademarks, service marks, logos or other proprietary trade dress, in connection with the sale of products or services, or in any advertising, press releases, publicity matters or other promotional materials, unless the other Party has given its written consent for such use, which consent the other Party may grant or withhold in its sole discretion.
- 34.2 Neither Party may imply any direct or indirect affiliation with or sponsorship or endorsement of it or its services or products by the other Party.
- 34.3 Any violation of this Section 34 shall be considered a material breach of this Agreement.

35. References

- 35.1 All references to Sections, Appendices and Exhibits shall be deemed to be references to Sections, Appendices and Exhibits of this Agreement unless the context shall otherwise require.
- 35.2 Unless the context shall otherwise require, any reference to a Tariff, agreement, technical or other document (including Verizon or third party guides, practices or handbooks), or provision of Applicable Law, is to such Tariff, agreement, document, or provision of Applicable Law, as amended and supplemented from time to time (and, in the case of a Tariff or provision of Applicable Law, to any successor Tariff or provision).

36. Relationship of the Parties

- 36.1 The relationship of the Parties under this Agreement shall be that of independent contractors and nothing herein shall be construed as creating any other relationship between the Parties.
- 36.2 Nothing contained in this Agreement shall make either Party the employee of the other, create a partnership, joint venture, or other similar relationship between the Parties, or grant to either Party a franchise, distributorship or similar interest.

- 36.3 Except for provisions herein expressly authorizing a Party to act for another Party, nothing in this Agreement shall constitute a Party as a legal representative or Agent of the other Party, nor shall a Party have the right or authority to assume, create or incur any liability or any obligation of any kind, express or implied, against, in the name or on behalf of the other Party unless otherwise expressly permitted by such other Party in writing, which permission may be granted or withheld by the other Party in its sole discretion.
- 36.4 Each Party shall have sole authority and responsibility to hire, fire, compensate, supervise, and otherwise control its employees, Agents and contractors. Each Party shall be solely responsible for payment of any Social Security or other taxes that it is required by Applicable Law to pay in conjunction with its employees, Agents and contractors, and for withholding and remitting to the applicable taxing authorities any taxes that it is required by Applicable Law to collect from its employees.
- 36.5 Except as otherwise expressly provided in this Agreement, no Party undertakes to perform any obligation of the other Party, whether regulatory or contractual, or to assume any responsibility for the management of the other Party's business.
- 36.6 The relationship of the Parties under this Agreement is a non-exclusive relationship.

37. Reservation of Rights

- 37.1 Notwithstanding anything to the contrary in this Agreement, neither Party waives, and each Party hereby expressly reserves, its rights: (a) to appeal or otherwise seek the reversal of and changes in any arbitration decision associated with this Agreement; (b) to challenge the lawfulness of this Agreement and any provision of this Agreement; (c) to seek changes in this Agreement (including, but not limited to, changes in rates, charges and the Services that must be offered) through changes in Applicable Law; and, (d) to challenge the lawfulness and propriety of, and to seek to change, any Applicable Law, including, but not limited to any rule, regulation, order or decision of the Commission, the FCC, or a court of applicable jurisdiction. Nothing in this Agreement shall be deemed to limit or prejudice any position a Party has taken or may take before the Commission, the FCC, any other state or federal regulatory or legislative bodies, courts of applicable jurisdiction, or industry fora. The provisions of this Section shall survive the expiration, cancellation or termination of this Agreement.
- 37.2 LightWave acknowledges LightWave has been advised by Verizon that it is Verizon's position that:
- 37.2.1 This Agreement contains certain provisions which are intended to reflect Applicable Law and Commission and/or FCC arbitration decisions; and
- 37.2.2 For the purposes of Appendix D, Sections 31 and 32, of the Merger Order, such provisions shall not be deemed to have been voluntarily negotiated or agreed to by Verizon and shall not be available to carriers pursuant to Appendix D, Sections 31 and 32 of the Merger Order.

38. Subcontractors

A Party may use a contractor of the Party (including, but not limited to, an Affiliate of the Party) to perform the Party's obligations under this Agreement; provided, that a Party's

use of a contractor shall not release the Party from any duty or liability to fulfill the Party's obligations under this Agreement.

39. Successors and Assigns

This Agreement shall be binding on and inure to the benefit of the Parties and their respective legal successors and permitted assigns.

40. Survival

The rights, liabilities and obligations of a Party for acts or omissions occurring prior to the expiration, cancellation or termination of this Agreement, the rights, liabilities and obligations of a Party under any provision of this Agreement regarding confidential information (including but not limited to, Section 10), indemnification or defense (including, but not limited to, Section 20), or limitation or exclusion of liability (including, but not limited to, Section 25), and the rights, liabilities and obligations of a Party under any provision of this Agreement which by its terms or nature is intended to continue beyond or to be performed after the expiration, cancellation or termination of this Agreement, shall survive the expiration, cancellation or termination of this Agreement.

41. Taxes

41.1 In General. With respect to any purchase hereunder of Services, if any federal, state or local tax, fee, surcharge or other tax-like charge (a "Tax") is required or permitted by Applicable Law or a Tariff to be collected from the Purchasing Party by the Providing Party, then (a) the Providing Party shall properly bill the Purchasing Party for such Tax, (b) the Purchasing Party shall timely remit such Tax to the Providing Party and (c) the Providing Party shall timely remit such collected Tax to the applicable taxing authority.

41.2 Taxes Imposed on the Providing Party. With respect to any purchase hereunder of Services, if any federal, state or local Tax is imposed by Applicable Law on the receipts of the Providing Party, and such Applicable Law permits the Providing Party to exclude certain receipts received from sales for resale to a public utility, distributor, telephone company, local exchange carrier, telecommunications company or other communications company ("Telecommunications Company"), such exclusion being based solely on the fact that the Purchasing Party is also subject to a tax based upon receipts ("Receipts Tax"), then the Purchasing Party (a) shall provide the Providing Party with notice in writing in accordance with Section 41.6 of this Agreement of its intent to pay the Receipts Tax and (b) shall timely pay the Receipts Tax to the applicable tax authority.

41.3 Taxes Imposed on Customers. With respect to any purchase hereunder of Services that are resold to a third party, if any federal, state or local Tax is imposed by Applicable Law on the subscriber, end-user, Customer or ultimate consumer ("Subscriber") in connection with any such purchase, which a Telecommunications Company is required to impose and/or collect from a Subscriber, then the Purchasing Party (a) shall be required to impose and/or collect such Tax from the Subscriber and (b) shall timely remit such Tax to the applicable taxing authority.

41.4 Liability for Uncollected Tax, Interest and Penalty. If the Providing Party has not received an exemption certificate from the Purchasing Party and the Providing Party fails to bill the Purchasing Party for any Tax as required by Section 41.1, then, as between the Providing Party and the Purchasing Party, (a) the Purchasing Party shall remain liable for such unbilled Tax and (b) the Providing Party shall be liable for any interest assessed thereon and any penalty assessed

with respect to such unbilled Tax by such authority. If the Providing Party properly bills the Purchasing Party for any Tax but the Purchasing Party fails to remit such Tax to the Providing Party as required by Section 41.1, then, as between the Providing Party and the Purchasing Party, the Purchasing Party shall be liable for such uncollected Tax and any interest assessed thereon, as well as any penalty assessed with respect to such uncollected Tax by the applicable taxing authority. If the Providing Party does not collect any Tax as required by Section 41.1 because the Purchasing Party has provided such Providing Party with an exemption certificate that is later found to be inadequate by a taxing authority, then, as between the Providing Party and the Purchasing Party, the Purchasing Party shall be liable for such uncollected Tax and any interest assessed thereon, as well as any penalty assessed with respect to such uncollected Tax by the applicable taxing authority. If the Purchasing Party fails to pay the Receipts Tax as required by Section 41.2, then, as between the Providing Party and the Purchasing Party, (x) the Providing Party shall be liable for any Tax imposed on its receipts and (y) the Purchasing Party shall be liable for any interest assessed thereon and any penalty assessed upon the Providing Party with respect to such Tax by such authority. If the Purchasing Party fails to impose and/or collect any Tax from Subscribers as required by Section 41.3, then, as between the Providing Party and the Purchasing Party, the Purchasing Party shall remain liable for such uncollected Tax and any interest assessed thereon, as well as any penalty assessed with respect to such uncollected Tax by the applicable taxing authority. With respect to any Tax that the Purchasing Party has agreed to pay, or is required to impose on and/or collect from Subscribers, the Purchasing Party agrees to indemnify and hold the Providing Party harmless on an after-tax basis for any costs incurred by the Providing Party as a result of actions taken by the applicable taxing authority to recover the Tax from the Providing Party due to the failure of the Purchasing Party to timely pay, or collect and timely remit, such Tax to such authority. In the event either Party is audited by a taxing authority, the other Party agrees to cooperate fully with the Party being audited in order to respond to any audit inquiries in a proper and timely manner so that the audit and/or any resulting controversy may be resolved expeditiously.

- 41.5 Tax Exemptions and Exemption Certificates. If Applicable Law clearly exempts a purchase hereunder from a Tax, and if such Applicable Law also provides an exemption procedure, such as an exemption-certificate requirement, then, if the Purchasing Party complies with such procedure, the Providing Party shall not collect such Tax during the effective period of such exemption. Such exemption shall be effective upon receipt of the exemption certificate or affidavit in accordance with the terms set forth in Section 41.6. If Applicable Law clearly exempts a purchase hereunder from a Tax, but does not also provide an exemption procedure, then the Providing Party shall not collect such Tax if the Purchasing Party (a) furnishes the Providing Party with a letter signed by an officer requesting such an exemption and citing the provision in the Applicable Law which clearly allows such exemption and (b) supplies the Providing Party with an indemnification agreement, reasonably acceptable to the Providing Party (e.g., an agreement commonly used in the industry), which holds the Providing Party harmless on an after-tax basis with respect to its forbearing to collect such Tax.
- 41.6 All notices, affidavits, exemption-certificates or other communications required or permitted to be given by either Party to the other, for purposes of this Section 41, shall be made in writing and shall be delivered in person or sent by certified mail, return receipt requested, or registered mail, or a courier service providing proof of

service, and sent to the addressees set forth in Section 29 as well as to the following:

To Verizon:

Tax Administration
Verizon Communications
1095 Avenue of the Americas
Room 3109
New York, NY 10036

To LightWave:

Finance
14504 Greenview Drive, Suite 302
Laurel, Maryland 20708

Either Party may from time to time designate another address or other addressees by giving notice in accordance with the terms of this Section. Any notice or other communication shall be deemed to be given when received.

42. Technology Upgrades

Notwithstanding any other provision of this Agreement, Verizon shall have the right to deploy, upgrade, migrate and maintain its network at its discretion. The Parties acknowledge that Verizon, at its election, may deploy fiber throughout its network and that such fiber deployment may inhibit or facilitate LightWave's ability to provide service using certain technologies. Nothing in this Agreement shall limit Verizon's ability to modify its network through the incorporation of new equipment or software or otherwise. LightWave shall be solely responsible for the cost and activities associated with accommodating such changes in its own network.

43. Territory

- 43.1 This Agreement applies to the territory in which Verizon operates as an Incumbent Local Exchange Carrier in the Commonwealth of Massachusetts. Verizon shall be obligated to provide Services under this Agreement only within this territory.
- 43.2 Notwithstanding any other provision of this Agreement, Verizon may terminate this Agreement as to a specific operating territory or portion thereof if Verizon sells or otherwise transfers its operations in such territory or portion thereof to a third-person. Verizon shall provide LightWave with at least 90 calendar days prior written notice of such termination, which shall be effective upon the date specified in the notice.

44. Third Party Beneficiaries

Except as expressly set forth in this Agreement, this Agreement is for the sole benefit of the Parties and their permitted assigns, and nothing herein shall create or be construed to provide any third-persons (including, but not limited to, Customers or contractors of a Party) with any rights (including, but not limited to, any third-party beneficiary rights) hereunder. Except as expressly set forth in this Agreement, a Party shall have no liability under this Agreement to the Customers of the other Party or to any other third person.

45. 251 and 271 Requirements

- 45.1 The Parties agree that the performance of the terms of this Agreement will satisfy Verizon's obligations under Section 251 of the Act, and the requirements of the Checklist under Section 271 of the Act.
- 45.2 The Parties understand and agree that this Agreement will be filed with the Commission and may thereafter be filed with the FCC as an integral part of an application by Verizon or an Affiliate of Verizon pursuant to Section 271(d) of the Act. In the event that any one or more of the provisions contained herein in Verizon's reasonable determination is likely to adversely affect the application pursuant to Section 271(d) of the Act, the Parties agree to make the revisions necessary to eliminate such adverse effect on the application.

46. 252(i) Obligations

- 46.1 To the extent required by Applicable Law, each Party shall comply with Section 252(i) of the Act and Appendix D, Sections 30 through 32, of the Merger Order ("Merger Order MFN Provisions").
- 46.2 To the extent that the exercise by LightWave of any rights it may have under Section 252(i) or the Merger Order MFN Provisions results in the rearrangement of Services by Verizon, LightWave shall be solely liable for all costs associated therewith, as well as for any termination charges associated with the termination of existing Verizon Services.

47. Use of Service

Each Party shall make commercially reasonable efforts to ensure that its Customers comply with the provisions of this Agreement (including, but not limited to the provisions of applicable Tariffs) applicable to the use of Services purchased by it under this Agreement.

48. Waiver

A failure or delay of either Party to enforce any of the provisions of this Agreement, or any right or remedy available under this Agreement or at law or in equity, or to require performance of any of the provisions of this Agreement, or to exercise any option which is provided under this Agreement, shall in no way be construed to be a waiver of such provisions, rights, remedies or options.

49. Warranties

EXCEPT AS EXPRESSLY STATED IN THIS AGREEMENT, NEITHER PARTY MAKES OR RECEIVES ANY WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE SERVICES PROVIDED, OR TO BE PROVIDED, UNDER THIS AGREEMENT AND THE PARTIES DISCLAIM ANY OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, **WARRANTIES OF MERCHANTABILITY, WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE** WARRANTIES AGAINST INFRINGEMENT, AND WARRANTIES ARISING BY TRADE CUSTOM, TRADE USAGE, COURSE OF DEALING OR PERFORMANCE, OR OTHERWISE.

50. Withdrawal of Services

- 50.1 Notwithstanding anything contained in this Agreement, except as otherwise required by Applicable Law, Verizon may terminate its offering and/or provision of any Service under this Agreement upon thirty (30) days prior written notice to LightWave.

- 50.2 Notwithstanding anything contained in this Agreement, except as otherwise required by Applicable Law, Verizon may with thirty (30) days prior written notice to LightWave terminate any provision of this Agreement that provides for the payment by Verizon to LightWave of compensation related to traffic, including, but not limited to, Reciprocal Compensation and other types of compensation for termination of traffic delivered by Verizon to LightWave. Following such termination, except as otherwise agreed in writing by the Parties, Verizon shall be obligated to provide compensation to LightWave related to traffic only to the extent required by Applicable Law. If Verizon exercises its right of termination under this Section, the Parties shall negotiate in good faith appropriate substitute provisions for compensation related to traffic; provided, however, that except as otherwise voluntarily agreed by Verizon in writing in its sole discretion, Verizon shall be obligated to provide compensation to LightWave related to traffic only to the extent required by Applicable Law. If within thirty (30) days after Verizon's notice of termination the Parties are unable to agree in writing upon mutually acceptable substitute provisions for compensation related to traffic, either Party may submit their disagreement to dispute resolution in accordance with Section 14 of this Agreement.

SIGNATURE PAGE

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

LIGHTWAVE COMMUNICATIONS, INC.

**VERIZON NEW ENGLAND INC., D/B/A VERIZON
MASSACHUSETTS**

By: _____

By: _____

Printed: Mark J. Ricigliano

Printed: Steven J. Pitterle

Title: President And CEO

Title: Director - Contract Negotiations

GLOSSARY

1. General Rule

- 1.1 The provisions of Sections 1.2 through 1.4 and Section 2 apply with regard to the Principal Document. Terms used in a Tariff shall have the meanings stated in the Tariff.
- 1.2 Unless the context clearly indicates otherwise, when a term listed in this Glossary is used in the Principal Document, the term shall have the meaning stated in this Glossary. A defined term intended to convey the meaning stated in this Glossary is capitalized when used. Other terms that are capitalized, and not defined in this Glossary or elsewhere in the Principal Document, shall have the meaning stated in the Act. Additional definitions that are specific to the matters covered in a particular provision of the Principal Document may appear in that provision. To the extent that there may be any conflict between a definition set forth in this Glossary and any definition in a specific provision, the definition set forth in the specific provision shall control with respect to that provision.
- 1.3 Unless the context clearly indicates otherwise, any term defined in this Glossary which is defined or used in the singular shall include the plural, and any term defined in this Glossary which is defined or used in the plural shall include the singular.
- 1.4 The words "shall" and "will" are used interchangeably throughout the Principal Document and the use of either indicates a mandatory requirement. The use of one or the other shall not confer a different degree of right or obligation for either Party.

2. Definitions

- 2.1 Act.
The Communications Act of 1934 (47 U.S.C. §151 et seq.), as from time to time amended (including, but not limited to, by the Telecommunications Act of 1996).
- 2.2 Advanced Services.
As a general matter, shall have the meaning set forth by the FCC.
- 2.3 Affiliate.
Shall have the meaning set forth in the Act.
- 2.4 Agent.
An agent or servant.
- 2.5 Agreement.
This Agreement, as defined in Section 1 of the General Terms and Conditions.
- 2.6 Ancillary Traffic.
All traffic that is destined for ancillary services, or that may have special billing

requirements, including but not limited to the following: Directory Assistance, 911/E911, Operator Services (IntraLATA call completion), IntraLATA third party, collect and calling card, 800/888 database query, LIDB, and Voice Information Services Traffic as described in Section 5 of the Additional Services Attachment.

2.7 ANI (Automatic Number Identification).

The signaling parameter that refers to the number transmitted through the network identifying the billing number of the calling party.

2.8 Applicable Law.

All effective laws, government regulations and government orders, applicable to each Party's performance of its obligations under this Agreement.

2.9 ASR (Access Service Request).

An industry standard form, which contains data elements and usage rules used by the Parties to add, establish, change or disconnect services or trunks for the purposes of interconnection.

2.10 BFR (Bona Fide Request).

The process described in the Network Element Attachment that prescribes the terms and conditions relating to a Party's request that the other Party provide a UNE that it is not otherwise required to provide under the terms of this Agreement.

2.11 Business Day.

Monday through Friday, except for holidays observed by Verizon.

2.12 Calendar Quarter.

January through March, April through June, July through September, or October through December.

2.13 Calendar Year.

January through December.

2.14 CCS (Common Channel Signaling).

A method of transmitting call set-up and network control data over a digital signaling network separate from the public switched telephone network facilities that carry the actual voice or data content of the call.

2.15 Central Office.

A local switching system for connecting lines to lines, lines to trunks, or trunks to trunks for the purpose of originating/terminating calls over the public switched telephone network. A single Central Office may handle several Central Office codes ("NXX"). Sometimes this term is used to refer to a telephone company building in which switching systems and telephone equipment are installed.

2.16 Central Office Switch.

A switch used to provide Telecommunications Services, including, but not limited to, an End Office Switch or a Tandem Switch. A Central Office Switch may also be employed as a combination End Office/Tandem Office Switch.

2.17 Claims.

Any and all claims, demands, suits, actions, settlements, judgments, fines, penalties, liabilities, injuries, damages, losses, costs (including, but not limited to, court costs), and expenses (including, but not limited to, reasonable attorney's fees).

2.18 CLEC (Competitive Local Exchange Carrier).

Any Local Exchange Carrier other than Verizon that is operating as a Local Exchange Carrier in the territory in which Verizon operates as an ILEC in the Commonwealth of Massachusetts. LightWave is or shortly will become a CLEC.

2.19 CLLI Codes.

Common Language Location Identifier Codes.

2.20 CMDS (Centralized Message Distribution System).

The billing record and clearing house transport system that LECs use to exchange out collects and in collects as well as Carrier Access Billing System (CABS) records.

2.21 Commission.

Massachusetts Department of Telecommunications and Energy.

2.22 CPN (Calling Party Number).

A CCS parameter that identifies the calling party's telephone number.

2.23 CPNI (Customer Proprietary Network Information).

Shall have the meaning set forth in Section 222 of the Act, 47 U.S.C. § 222.

2.24 Cross Connection.

For a Collocation arrangement, the facilities between the collocating Party's equipment and the equipment or facilities of the housing Party (such as the housing Party's digital signal cross connect, Main Distribution Frame, or other suitable frame or panel).

2.25 Customer.

A third party residence or business end-user subscriber to Telephone Exchange Services provided by either of the Parties.

2.26 Dark Fiber IOF (Dark Fiber Interoffice Facility).

Consists of continuous fiber strand(s) that are located within a fiber optic cable between either (a) accessible terminals in two Verizon Central Offices or (b) an accessible terminal in a Verizon Central Office and an accessible terminal in a LightWave Central Office, but, in either case, that has not been activated through

connection to multiplexing, aggregation or other electronics that "light it" and thereby render it capable of carrying Telecommunications Services.

2.27 Dark Fiber Loop.

Consists of continuous fiber optic strand(s) in a Verizon fiber optic cable between Verizon's accessible terminal, such as the fiber distribution frame, or its functional equivalent, located within a Verizon Wire Center, and Verizon's accessible terminal located in Verizon's main termination point at a Customer premises, such as a fiber patch panel, and that has not been activated through connection to electronics that "light" it and render it capable of carrying Telecommunications Services.

2.28 Dark Fiber Sub-Loop.

Consists of continuous fiber optic strand(s) in a Verizon fiber optic cable (a) between Verizon's accessible terminal located within a Verizon Wire Center, and Verizon's accessible terminal at a Verizon remote terminal equipment enclosure, (b) between Verizon's accessible terminal at a Verizon remote terminal equipment enclosure and Verizon's accessible terminal located in Verizon's main termination point located within a Customer premises, or (c) between Verizon's accessible terminals at Verizon remote terminal equipment enclosures, and that in all cases has not been activated through connection to electronics that "light" it and render it capable of carrying Telecommunications Services.

2.29 Digital Signal Level.

One of several transmission rates in the time-division multiplex hierarchy.

2.30 DS0 (Digital Signal Level 0).

The 64kbps zero-level signal in the time-division multiplex hierarchy.

2.31 DS1 (Digital Signal Level 1).

The 1.544 Mbps first-level signal in the time-division multiplex hierarchy.

2.32 DS3 (Digital Signal Level 3).

The 44.736 Mbps third-level signal in the time-division multiplex hierarchy.

2.33 EMI (Exchange Message Interface).

Standard used for the interexchange of telecommunications message information between local exchange carriers and interexchange carriers for billable, non-billable, sample, settlement and study data. Data is provided between companies via a unique record layout that contains Customer billing information, account summary and tracking analysis. EMI format is contained in document SR-320 published by the Alliance for Telecom Industry Solutions.

2.34 End Office Switch or End Office.

A switching entity that is used to terminate Customer station Loops for the purpose of interconnection to each other and to trunks.

2.35 Entrance Facility.

The facilities between a Party's designated premises and the Central Office serving that designated premises.

2.36 Exchange Access.

Shall have the meaning set forth in the Act.

2.37 Extended Local Calling Scope Arrangement.

An arrangement that provides a Customer a local calling scope (Extended Area Service, "EAS"), outside of the Customer's basic exchange serving area. Extended Local Calling Scope Arrangements may be either optional or non-optional. "Optional Extended Local Calling Scope Arrangement Traffic" is traffic that under an optional Extended Local Calling Scope Arrangement chosen by the Customer terminates outside of the Customer's basic exchange serving area.

2.38 FCC.

The Federal Communications Commission.

2.39 FCC Internet Order.

Order on Remand and Report and Order, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Inter-carrier Compensation for ISP Bound Traffic*, FCC 01-131, CC Docket Nos. 96-98 and 99-68, (adopted April 18, 2001).

2.40 FCC Regulations.

The unstayed, effective regulations promulgated by the FCC, as amended from time to time.

2.41 House and Riser Cable.

A two-wire metallic distribution facility in Verizon's network between the minimum point of entry for a building where a premises of a Customer is located (such a point, an "MPOE") and the Rate Demarcation Point for such facility (or NID) if the NID is located at such Rate Demarcation Point).

2.42 IDLC (Integrated Digital Loop Carrier).

A subscriber Loop carrier system that integrates within the switch at a DS1 level, which is twenty-four (24) Loop transmission paths combined into a 1.544 Mbps digital signal.

2.43 ILEC (Incumbent Local Exchange Carrier).

Shall have the meaning stated in the Act.

2.44 Information Access.

The provision of specialized exchange telecommunications services in connection with the origination, termination, transmission, switching, forwarding or routing of telecommunications traffic to or from the facilities of a provider of information services, including a provider of Internet access or Internet transmission services.

- 2.45 Inside Wire or Inside Wiring.
All wire, cable, terminals, hardware, and other equipment or materials, on the Customer's side of the Rate Demarcation Point.
- 2.46 Internet Traffic.
Any traffic that is transmitted to or returned from the Internet at any point during the duration of the transmission.
- 2.47 InterLATA Service.
Shall have the meaning set forth in the Act.
- 2.48 IntraLATA.
Telecommunications that originate and terminate within the same LATA.
- 2.49 IP (Interconnection Point).
For Reciprocal Compensation Traffic, the point at which a Party who receives Reciprocal Compensation Traffic from the other Party assesses Reciprocal Compensation charges for the further transport and termination of that Reciprocal Compensation Traffic.
- 2.50 ISDN (Integrated Services Digital Network).
A switched network service providing end-to-end digital connectivity for the simultaneous transmission of voice and data. Basic Rate Interface-ISDN (BRI-ISDN) provides for digital transmission of two (2) 64 kbps bearer channels and one (1) 16 kbps data and signaling channel (2B+D). Primary Rate Interface-ISDN (PRI-ISDN) provides for digital transmission of twenty-three (23) 64 kbps bearer channels and one (1) 64 kbps data and signaling channel (23B+D).
- 2.51 IXC (Interexchange Carrier).
A Telecommunications Carrier that provides, directly or indirectly, InterLATA or IntraLATA Telephone Toll Services.
- 2.52 LATA (Local Access and Transport Area).
Shall have the meaning set forth in the Act.
- 2.53 LEC (Local Exchange Carrier).
Shall have the meaning set forth in the Act.
- 2.54 LERG (Local Exchange Routing Guide).
A Telcordia Technologies reference containing NPA/NXX routing and homing information.
- 2.55 LIDB (Line Information Data Base).
Line Information databases which provide, among other things, calling card validation functionality for telephone line number cards issued by Verizon and other entities and validation data for collect and third number-billed calls(e.g.,

data for billed number screening).

2.56 Line Side.

An End Office Switch connection that provides transmission, switching and optional features suitable for Customer connection to the public switched network, including loop start supervision, ground start supervision and signaling for BRI-ISDN service.

2.57 Loop.

A transmission path that extends from a Main Distribution Frame or functionally comparable piece of equipment in a Customer's serving End Office, to the Rate Demarcation Point (or NID if installed at the Rate Demarcation Point) in or at the Customer's premises. The actual transmission facilities used to provide a Loop may utilize any of several technologies.

2.58 LSR (Local Service Request).

An industry standard form, which contains data elements and usage rules, used by the Parties to establish, add, change or disconnect resold Telecommunications Services and Network Elements.

2.59 MDF (Main Distribution Frame).

The primary point at which outside plant facilities terminate within a Wire Center, for interconnection to other Telecommunications facilities within the Wire Center. The distribution frame used to interconnect cable pairs and line trunk equipment terminating on a switching system.

2.60 Measured Internet Traffic.

Dial-up, switched Internet Traffic originated by a Customer of one Party on that Party's network at a point in a Verizon local calling area, and delivered to a Customer or an Internet Service Provider served by the other Party, on that other Party's network at a point in the same Verizon local calling area. Verizon local calling areas shall be as defined by Verizon. For the purposes of this definition, a Verizon local calling area includes a Verizon non-optional Extended Local Calling Scope Arrangement, but does not include a Verizon optional Extended Local Calling Scope Arrangement. Calls originated on a 1+ presubscription basis, or on a casual dialed (10XXX/101XXX) basis, are not considered Measured Internet Traffic.

2.61 MECAB (Multiple Exchange Carrier Access Billing).

A document prepared by the Billing Committee of the Ordering and Billing Forum (OBF), which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS). The MECAB document, published by Telcordia Technologies as Special Report SR-BDS-000983, contains the recommended guidelines for the billing of an Exchange Access Service provided by two or more LECs, or by one LEC in two or more states, within a single LATA.

2.62 MECOD (Multiple Exchange Carriers Ordering and Design Guidelines for Access Services - Industry Support Interface).

A document developed by the Ordering/Provisioning Committee under the auspices of the Ordering and Billing Forum (OBF), which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS). The MECOD document, published by Telcordia Technologies as Special Report SR-STS-002643, establishes methods for processing orders for Exchange Access Service that is to be provided by two or more LECs.

2.63 Merger Order.

The FCC's Order "In re Application of GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer Control of Domestic and International Section 214 and 310 Authorizations and Application to Transfer Control of a Submarine Cable Landing License", Memorandum Opinion and Order, FCC CC Docket No. 98-184, FCC 00-221 (June 16, 2000), as modified from time to time.

2.64 NANP (North American Numbering Plan).

The system of telephone numbering employed in the United States, Canada, Bermuda, Puerto Rico and certain Caribbean islands. The NANP format is a 10-digit number that consist of a 3-digit NPA Code (commonly referred to as the area code), followed by a 3-digit NXX code and 4 digit line number.

2.65 Network Element.

Shall have the meaning stated in the Act.

2.66 NID (Network Interface Device).

The Verizon provided interface terminating Verizon's Telecommunications network on the property where the Customer's service is located at a point determined by Verizon. The NID contains an FCC Part 68 registered jack from which Inside Wire may be connected to Verizon's network.

2.67 NPA (Numbering Plan Area).

Also sometimes referred to as an area code, is the first three-digit indicator of each 10-digit telephone number within the NANP. There are two general categories of NPA, "Geographic NPAs" and "Non-Geographic NPAs". A Geographic NPA is associated with a defined geographic area, and all telephone numbers bearing such NPA are associated with services provided within that geographic area. A Non-Geographic NPA, also known as a "Service Access Code" or "SAC Code" is typically associated with a specialized Telecommunications Service that may be provided across multiple geographic NPA areas. 500, 700, 800, 888 and 900 are examples of Non-Geographic NPAs.

2.68 NXX, NXX Code, Central Office Code or CO Code.

The three-digit switch entity indicator (i.e. the first three digits of a seven-digit telephone number).

2.69 Order.

An order or application to provide, change or terminate a Service (including, but

not limited to, a commitment to purchase a stated number or minimum number of lines or other Services for a stated period or minimum period of time).

2.70 POI (Point of Interconnection).

The physical location where the one Party's facilities physically interconnect with the other Party's facilities for the purpose of exchanging traffic.

2.71 Port.

A line card (or equivalent) and associated peripheral equipment on an End Office Switch that interconnects individual Loops or individual Customer trunks with the switching components of an End Office Switch and the associated switching functionality in that End Office Switch. Each Port is typically associated with one (or more) telephone number(s) that serves as the Customer's network address. The Port is part of the provision of unbundled Local Switching Element.

2.72 Principal Document.

This document, including, but not limited to, the Title Page, the Table of Contents, the Preface, the General Terms and Conditions, the signature page, this Glossary, the Attachments, and the Appendices to the Attachments

2.73 Providing Party.

A Party offering or providing a Service to the other Party under this Agreement.

2.74 Purchasing Party.

A Party requesting or receiving a Service from the other Party under this Agreement.

2.75 Rate Center Area.

The geographic area that has been identified by a given LEC as being associated with a particular NPA-NXX code assigned to the LEC for its provision of Telephone Exchange Services. The Rate Center Area is the exclusive geographic area that the LEC has identified as the area within which it will provide Telephone Exchange Services bearing the particular NPA-NXX designation associated with the specific Rate Center Area.

2.76 Rate Center Point.

A specific geographic point, defined by a V&H coordinate, located within the Rate Center Area and used to measure distance for the purpose of billing for distance-sensitive Telephone Exchange Services and Toll Traffic. Pursuant to Telcordia Practice BR-795-100-100, the Rate Center Point may be an End Office location, or a "LEC Consortium Point Of Interconnection."

2.77 Rate Demarcation Point.

The physical point in a Verizon provided network facility at which Verizon's responsibility for maintaining that network facility ends and the Customer's responsibility for maintaining the remainder of the facility begins, as set forth in this Agreement, Verizon's applicable Tariffs, if any, or as otherwise prescribed under Applicable Law.

2.78 Reciprocal Compensation.

The arrangement for recovering, in accordance with Section 251(b)(5) of the Act, the FCC Internet Order, and other applicable FCC orders and FCC Regulations, costs incurred for the transport and termination of Reciprocal Compensation Traffic originating on one Party's network and terminating on the other Party's network (as set forth in Section 7 of the Interconnection Attachment).

2.79 Reciprocal Compensation Traffic.

Telecommunications traffic originated by a Customer of one Party on that Party's network and terminated to a Customer of the other Party on that other Party's network, except for Telecommunications traffic that is interstate or intrastate Exchange Access, Information Access, or exchange services for Exchange Access or Information Access. The determination of whether Telecommunications traffic is Exchange Access or Information Access shall be based upon Verizon's local calling areas as defined by Verizon. Reciprocal Compensation Traffic does not include: (1) any Internet Traffic; (2) traffic that does not originate and terminate within the same Verizon local calling area as defined by Verizon; (3) Toll Traffic, including, but not limited to, calls originated on a 1+ presubscription basis, or on a casual dialed (10XXX/101XXX) basis; (4) Optional Extended Local Calling Scope Arrangement Traffic; (5) special access, private line, Frame Relay, ATM, or any other traffic that is not switched by the terminating Party; (6) Tandem Transit Traffic; or, (7) Voice Information Service Traffic (as defined in Section 5 of the Additional Services Attachment). For the purposes of this definition, a Verizon local calling area includes a Verizon non-optional Extended Local Calling Scope Arrangement, but does not include a Verizon optional Extended Local Calling Scope Arrangement.

2.80 Retail Prices.

The prices at which a Service is provided by Verizon at retail to subscribers who are not Telecommunications Carriers.

2.81 Routing Point.

A specific geographic point identified by a specific V&H coordinate. The Routing Point is used to route inbound traffic to specified NPA-NXXs. The Routing Point must be located within the LATA in which the corresponding NPA-NXX is located. However, the Routing Point associated with each NPA-NXX need not be the same as the corresponding Rate Center Point, nor must it be located within the corresponding Rate Center Area, nor must there be a unique and separate Routing Point corresponding to each unique and separate Rate Center Area.

2.82 Service.

Any Interconnection arrangement, Network Element, Telecommunications Service, Collocation arrangement, or other service, facility or arrangement, offered by a Party under this Agreement.

2.83 SS7 (Signaling System 7).

The common channel out-of-band signaling protocol developed by the Consultative Committee for International Telephone and Telegraph (CCITT) and the American National Standards Institute (ANSI). Verizon and LightWave

currently utilize this out-of-band signaling protocol.

2.84 Subsidiary.

A corporation or other person that is controlled by a Party.

2.85 Sub-Loop Distribution Facility.

A two-wire or four-wire metallic distribution facility in Verizon's network between a Verizon feeder distribution interface ("FDI") and the Rate Demarcation Point for such facility (or NID if the NID is located at such Rate Demarcation Point).

2.86 Sub-Loop Feeder Facility.

A DS1 or DS3 transmission path over a feeder facility in Verizon's network between a Verizon End Office and either a Verizon remote terminal equipment enclosure (an "RTEE") that subtends such End Office or a Verizon FDI that subtends the End Office.

2.87 Switched Access Detail Usage Data.

A category 1101XX record as defined in the EMI Telcordia Practice BR-010-200-010.

2.88 Switched Access Summary Usage Data.

A category 1150XX record as defined in the EMI Telcordia Practice BR-010-200-010.

2.89 Switched Exchange Access Service.

The offering of transmission and switching services for the purpose of the origination or termination of Toll Traffic. Switched Exchange Access Services include but may not be limited to: Feature Group A, Feature Group B, Feature Group D, 700 access, 800 access, 888 access and 900 access.

2.90 Tandem Switch.

A switching entity that has billing and recording capabilities and is used to connect and switch trunk circuits between and among End Office Switches and between and among End Office Switches and carriers' aggregation points, points of termination, or points of presence, and to provide Switched Exchange Access Services.

2.91 Tariff.

2.91.1 Any applicable Federal or state tariff of a Party, as amended from time-to-time; or

2.91.2 Any standard agreement or other document, as amended from time-to-time, that sets forth the generally available terms, conditions and prices under which a Party offers a Service.

The term "Tariff" does not include any Verizon statement of generally available terms (SGAT) which has been approved or is pending approval by the Commission pursuant to Section 252(f) of the Act.

2.92 Telcordia Technologies.

Telcordia Technologies, Inc., formerly known as Bell Communications Research, Inc. (Bellcore).

2.93 Telecommunications Carrier.

Shall have the meaning set forth in the Act.

2.94 Telecommunications Services.

Shall have the meaning set forth in the Act.

2.95 Telephone Exchange Service.

Shall have the meaning set forth in the Act.

2.96 Third Party Claim.

A Claim where there is (a) a claim, demand, suit or action by a person who is not a Party, (b) a settlement with, judgment by, or liability to, a person who is not a Party, or (c) a fine or penalty imposed by a person who is not a Party.

2.97 Toll Traffic.

Traffic that is originated by a Customer of one Party on that Party's network and terminates to a Customer of the other Party on that other Party's network and is not Reciprocal Compensation Traffic, Measured Internet Traffic, or Ancillary Traffic. Toll Traffic may be either "IntraLATA Toll Traffic" or "InterLATA Toll Traffic", depending on whether the originating and terminating points are within the same LATA.

2.98 Toxic or Hazardous Substance.

Any substance designated or defined as toxic or hazardous under any "Environmental Law" or that poses a risk to human health or safety, or the environment, and products and materials containing such substance. "Environmental Laws" means the Comprehensive Environmental Response, Compensation, and Liability Act, the Emergency Planning and Community Right-to-Know Act, the Water Pollution Control Act, the Air Pollution Control Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act, the Occupational Safety and Health Act, and all other Federal, State or local laws or governmental regulations or requirements, that are similar to the above-referenced laws or that otherwise govern releases, chemicals, products, materials or wastes that may pose risks to human health or safety, or the environment, or that relate to the protection of wetlands or other natural resources.

2.99 Traffic Factor 1.

For traffic exchanged via Interconnection Trunks, a percentage calculated by dividing the number of minutes of interstate traffic (excluding Measured Internet Traffic) by the total number of minutes of interstate and intrastate traffic.
$$\left(\frac{\text{Interstate Traffic Total Minutes of Use \{excluding Measured Internet Traffic Total Minutes of Use\}}}{\text{Interstate Traffic Total Minutes of Use} + \text{Intrastate Traffic Total Minutes of Use}} \right) \times 100$$
. Until the form of a Party's bills is updated to use the term "Traffic Factor 1," the term "Traffic Factor 1" may be referred to on the

Party's bills and in billing related communications as "Percent Interstate Usage" or "PIU."

2.100 Traffic Factor 2.

For traffic exchanged via Interconnection Trunks, a percentage calculated by dividing the combined total number of minutes of Reciprocal Compensation Traffic and Measured Internet Traffic by the combined total number of minutes of intrastate traffic and Measured Internet Traffic. ($\{ \text{Reciprocal Compensation Traffic Total Minutes of Use} + \text{Measured Internet Traffic Total Minutes of Use} \} \div \{ \text{Intrastate Traffic Total Minutes of Use} + \text{Measured Internet Traffic Total Minutes of Use} \} \times 100$). Until the form of a Party's bills is updated to use the term "Traffic Factor 2," the term "Traffic Factor 2" may be referred to on the Party's bills and in billing related communications as "Percent Local Usage" or "PLU."

2.101 Trunk Side.

A Central Office Switch connection that is capable of, and has been programmed to treat the circuit as, connecting to another switching entity, for example, to another carrier's network. Trunk side connections offer those transmission and signaling features appropriate for the connection of switching entities and cannot be used for the direct connection of ordinary telephone station sets.

2.102 UDLC (Universal Digital Loop Carrier).

UDLC arrangements consist of a Central Office Terminal and a Remote Terminal located in the outside plant or at a customer premises. The Central Office and the Remote Terminal units perform analog to digital conversions to allow the feeding facility to be digital. UDLC is deployed where the types of services to be provisioned by the systems cannot be integrated such as non-switched services and UNE Loops.

2.103 V and H Coordinates Method.

A method of computing airline miles between two points by utilizing an established formula that is based on the vertical and horizontal coordinates of the two points.

2.104 Voice Grade.

Either an analog signal of 300 to 3000 Hz or a digital signal of 56/64 kilobits per second. When referring to digital Voice Grade service (a 56-64 kbps channel), the terms "DS0" or "sub-DS1" may also be used.

2.105 Wire Center.

A building or portion thereof which serves as the premises for one or more Central Office Switches and related facilities.

2.106 xDSL.

As defined and offered in this Agreement. The small "x" before the letters DSL signifies reference to DSL as a generic transmission technology, as opposed to a specific DSL "flavor."

ADDITIONAL SERVICES ATTACHMENT

1. Alternate Billed Calls

- 1.1 The Parties will engage in settlements of intraLATA intrastate alternate-billed calls (e.g., collect, calling card, and third-party billed calls) originated or authorized by their respective Customers in accordance with an arrangement mutually agreed to by the Parties.

2. Dialing Parity - Section 251(b)(3)

Each Party shall provide the other Party with nondiscriminatory access to such services and information as are necessary to allow the other Party to implement local Dialing Parity in accordance with the requirements of Section 251(b)(3) of the Act.

3. Directory Assistance (DA) and Operator Services (OS)

- 3.1 Either Party may request that the other Party provide the requesting Party with nondiscriminatory access to the other Party's directory assistance services (DA), IntraLATA operator call completion services (OS), and/or directory assistance listings database. If either Party makes such a request, the Parties shall enter into a mutually acceptable written agreement for such access.
- 3.2 LightWave shall arrange, at its own expense, the trunking and other facilities required to transport traffic to and from the designated DA and OS switch locations.

4. Directory Listing and Directory Distribution

To the extent required by Applicable Law, Verizon will provide directory services to LightWave. Such services will be provided in accordance with the terms set forth herein.

4.1 Listing Information.

As used herein, "Listing Information" means a LightWave Customer's primary name, address (including city, state and zip code), telephone number(s), the delivery address and number of directories to be delivered, and, in the case of a business Customer, the primary business heading under which the business Customer desires to be placed, and any other information Verizon deems necessary for the publication and delivery of directories.

4.2 Listing Information Supply.

LightWave shall provide to Verizon on a regularly scheduled basis, at no charge, and in a format required by Verizon or by a mutually agreed upon industry standard (e.g., Ordering and Billing Forum developed) all Listing Information and the service address for each LightWave Customer whose service address location falls within the geographic area covered by the relevant Verizon directory. LightWave shall also provide to Verizon on a daily basis: (a) information showing LightWave Customers who have disconnected or terminated their service with LightWave; and (b) delivery information for each non-listed or non-published LightWave Customer to enable Verizon to perform its directory distribution responsibilities. Verizon shall promptly provide to LightWave (normally within forty-eight (48) hours of receipt by Verizon, excluding non-business days) a query on any listing that is not acceptable.

4.3 Listing Inclusion and Distribution.

Verizon shall include each LightWave Customer's primary listing in the appropriate alphabetical directory and, for business Customers, in the appropriate classified (Yellow Pages) directory in accordance with the directory configuration, scope and schedules determined by Verizon in its sole discretion, and shall provide initial distribution of such directories to such LightWave Customers in the same manner it provides initial distribution of such directories to its own Customers. "Primary Listing" means a Customer's primary name, address, and telephone number. Listings of LightWave's Customers shall be interfiled with listings of Verizon's Customers and the Customers of other LECs included in the Verizon directories. LightWave shall pay Verizon's tariffed charges for additional, foreign, and other listings products (as documented in local Tariff) for LightWave's Customers.

4.4 Verizon Information.

Upon request by LightWave, Verizon shall make available to LightWave the following information to the extent that Verizon provides such information to its own business offices: a directory list of relevant NXX codes, directory and Customer Guide close dates, and Yellow Pages headings. Verizon shall also make available to LightWave, upon written request, a copy of Verizon's alphabetical listings standards and specifications handbook.

4.5 Confidentiality of Listing Information.

Verizon shall accord LightWave Listing Information the same level of confidentiality that Verizon accords its own listing information, and shall use such Listing Information solely for the purpose of providing directory-related services; provided, however, that should Verizon elect to do so, it may use or license LightWave Listing Information for directory publishing, direct marketing, or any other purpose for which Verizon uses or licenses its own listing information, so long as LightWave Customers are not separately identified as such; and provided further that LightWave may identify those of its Customers who request that their names not be sold for direct marketing purposes and Verizon shall honor such requests to the same extent that it does for its own Customers. Verizon shall not be obligated to compensate LightWave for Verizon's use or licensing of LightWave Listing Information.

4.6 Accuracy.

Both Parties shall use commercially reasonable efforts to ensure the accurate publication of LightWave Customer listings. At LightWave's request, Verizon shall provide LightWave with a report of all LightWave Customer listings in a reasonable timeframe prior to the service order close date for the applicable directory. Verizon shall process any corrections made by LightWave with respect to its listings, provided such corrections are received prior to the close date of the particular directory.

4.7 Indemnification.

LightWave shall adhere to all practices, standards, and ethical requirements established by Verizon with regard to listings. By providing Verizon with Listing Information, LightWave warrants to Verizon that LightWave has the right to provide such Listing Information to Verizon on behalf of its Customers. LightWave shall make commercially reasonable efforts to ensure that any

business or person to be listed is authorized and has the right (a) to provide the product or service offered, and (b) to use any personal or corporate name, trade name, trademark, service mark or language used in the listing. LightWave agrees to release, defend, hold harmless and indemnify Verizon from and against any and all claims, losses, damages, suits, or other actions, or any liability whatsoever, suffered, made, instituted, or asserted by any person arising out of Verizon's publication or dissemination of the Listing Information as provided by LightWave hereunder.

4.8 Liability.

Verizon's liability to LightWave in the event of a Verizon error in or omission of a LightWave Customer listing shall not exceed the amount to which Verizon would be liable to its own Customer for such error or omission. LightWave agrees to take all reasonable steps, including, but not limited to, entering into appropriate contractual provisions with its Customers, to ensure that its and Verizon's liability to LightWave's Customers in the event of a Verizon error in or omission of a listing shall be subject to the same limitations of liability applicable between Verizon and its own Customers as set forth in Verizon's applicable Tariffs.

4.9 Service Information Pages.

Verizon shall include all LightWave NXX codes associated with the geographic areas to which each directory pertains, to the extent it does so for Verizon's own NXX codes, in any lists of such codes that are contained in the general reference portion of each directory. LightWave's NXX codes shall appear in such lists in the same manner as Verizon's NXX information. In addition, when LightWave is authorized to, and is offering, local service to Customers located within the geographic area covered by a specific directory, at LightWave's request, Verizon shall include, at no charge, in the "Customer Guide" or comparable section of the applicable alphabetical directories, LightWave's critical contact information for LightWave's installation, repair and Customer service, as provided by LightWave. Such critical contact information shall appear alphabetically by local exchange carrier and in accordance with Verizon's generally applicable policies. LightWave shall be responsible for providing the necessary information to Verizon by the applicable close date for each affected directory.

4.10 Directory Publication.

Nothing in this Agreement shall require Verizon to publish a directory where it would not otherwise do so.

4.11 Other Directory Services.

LightWave acknowledges that if LightWave desires directory services in addition to those described herein, such additional services must be obtained under separate agreement with Verizon's directory publishing company.

5. Voice Information Service Traffic

- 5.1 For purposes of this Section 5, (a) Voice Information Service means a service that provides [i] recorded voice announcement information or [ii] a vocal discussion program open to the public, and (b) Voice Information Service Traffic means intraLATA switched voice traffic, delivered to a Voice Information Service. Voice Information Service Traffic does not include any form of Internet Traffic. Voice Information Service Traffic also does not include 555 traffic or similar traffic

with AIN service interfaces, which traffic shall be subject to separate arrangements between the Parties. Voice Information Service Traffic is not subject to Reciprocal Compensation charges under Section 7 of the Interconnection Attachment.

- 5.2 If a LightWave Customer is served by resold Verizon dial tone line Telecommunications Service or a Verizon Local Switching UNE, to the extent reasonably feasible, Verizon will route Voice Information Service Traffic originating from such Service or UNE to the appropriate Voice Information Service connected to Verizon's network unless a feature blocking such Voice Information Service Traffic has been installed. For such Voice Information Service Traffic, LightWave shall pay to Verizon without discount any Voice Information Service provider charges billed by Verizon to LightWave. LightWave shall pay Verizon such charges in full regardless of whether or not LightWave collects such charges from its Customer.
- 5.3 LightWave shall have the option to route Voice Information Service Traffic that originates on its own network to the appropriate Voice Information Service connected to Verizon's network. In the event LightWave exercises such option, LightWave will establish, at its own expense, a dedicated trunk group to the Verizon Voice Information Service serving switch. This trunk group will be utilized to allow LightWave to route Voice Information Service Traffic originated on its network to Verizon. For such Voice Information Service Traffic, unless LightWave has entered into a written agreement with Verizon under which LightWave will collect from LightWave's Customer and remit to Verizon the Voice Information Service provider's charges, LightWave shall pay to Verizon without discount any Voice Information Service provider charges billed by Verizon to LightWave. LightWave shall pay Verizon such charges in full regardless of whether or not LightWave collects such charges from its own Customer.

6. Intercept and Referral Announcements

- 6.1 When a Customer changes its service provider from Verizon to LightWave, or from LightWave to Verizon, and does not retain its original telephone number, the Party formerly providing service to such Customer shall provide a referral announcement ("Referral Announcement") on the abandoned telephone number which provides the Customer's new number or other appropriate information, to the extent known to the Party formerly providing service. Notwithstanding the foregoing, a Party shall not be obligated under this Section to provide a Referral Announcement if the Customer owes the Party unpaid overdue amounts or the Customer requests that no Referral Announcement be provided.
- 6.2 Referral Announcements shall be provided, in the case of business Customers, for a period of not less than one hundred and twenty (120) days after the date the Customer changes its telephone number, and, in the case of residential Customers, not less than thirty (30) days after the date the Customer changes its telephone number; provided that if a longer time period is required by Applicable Law, such longer time period shall apply. Except as otherwise provided by Applicable Law, the period for a referral may be shortened by the Party formerly providing service if a number shortage condition requires reassignment of the telephone number.
- 6.3 This referral announcement will be provided by each Party at no charge to the other Party; provided that the Party formerly providing service may bill the Customer its standard Tariff charge, if any, for the referral announcement.

7. Originating Line Number Screening (OLNS)

Upon LightWave's request, Verizon will update its database used to provide originating line number screening (the database of information which indicates to an operator the acceptable billing methods for calls originating from the calling number (e.g., penal institutions, COCOTS).

8. Operations Support Systems (OSS) Services

8.1 Definitions.

The terms listed below shall have the meanings stated below:

- 8.1.1 Verizon Operations Support Systems: Verizon systems for pre-ordering, ordering, provisioning, maintenance and repair, and billing.
- 8.1.2 Verizon OSS Services: Access to Verizon Operations Support Systems functions. The term "Verizon OSS Services" includes, but is not limited to: (a) Verizon's provision of LightWave Usage Information to LightWave pursuant to Section 8.3 of this Attachment; and, (b) "Verizon OSS Information", as defined in Section 8.1.4 of this Attachment.
- 8.1.3 Verizon OSS Facilities: Any gateways, interfaces, databases, facilities, equipment, software, or systems, used by Verizon to provide Verizon OSS Services to LightWave.
- 8.1.4 Verizon OSS Information: Any information accessed by, or disclosed or provided to, LightWave through or as a part of Verizon OSS Services. The term "Verizon OSS Information" includes, but is not limited to: (a) any Customer Information related to a Verizon Customer or a LightWave Customer accessed by, or disclosed or provided to, LightWave through or as a part of Verizon OSS Services; and, (b) any LightWave Usage Information (as defined in Section 8.1.6 of this Attachment) accessed by, or disclosed or provided to, LightWave.
- 8.1.5 Verizon Retail Telecommunications Service: Any Telecommunications Service that Verizon provides at retail to subscribers that are not Telecommunications Carriers. The term "Verizon Retail Telecommunications Service" does not include any Exchange Access service (as defined in Section 3(16) of the Act, 47 U.S.C. § 153(16)) provided by Verizon.
- 8.1.6 LightWave Usage Information: For a Verizon Retail Telecommunications Service purchased by LightWave pursuant to the Resale Attachment, the usage information that Verizon would record if Verizon was furnishing such Verizon Retail Telecommunications Service to a Verizon end-user retail Customer. For a Verizon Local Switching Network Element purchased by LightWave pursuant to the Network Element Attachment, the usage information that Verizon would record if Verizon was using such Local Switching Network Element to furnish a Verizon Retail Telecommunications Service to a Verizon end-user retail Customer.
- 8.1.7 Customer Information: CPNI of a Customer and any other non-public, individually identifiable information about a Customer or the purchase by a Customer of the services or products of a Party.

8.2 Verizon OSS Services.

- 8.2.1 Upon request by LightWave, Verizon shall provide to LightWave Verizon OSS Services. Such Verizon OSS Services will be provided in accordance with, but only to the extent required by, Applicable Law.
- 8.2.2 Subject to the requirements of Applicable Law, Verizon Operations Support Systems, Verizon Operations Support Systems functions, Verizon OSS Facilities, Verizon OSS Information, and the Verizon OSS Services that will be offered by Verizon, shall be as determined by Verizon. Subject to the requirements of Applicable Law, Verizon shall have the right to change Verizon Operations Support Systems, Verizon Operations Support Systems functions, Verizon OSS Facilities, Verizon OSS Information, and the Verizon OSS Services, from time-to-time, without the consent of LightWave.
- 8.2.3 To the extent required by Applicable Law, in providing Verizon OSS Services to LightWave, Verizon will comply with Verizon's applicable OSS Change Management Guidelines, as such Guidelines are modified from time-to-time, including, but not limited to, the provisions of the Guidelines related to furnishing notice of changes in Verizon OSS Services. Verizon's OSS Change Management Guidelines will be set out on a Verizon website.

8.3 LightWave Usage Information.

- 8.3.1 Upon request by LightWave, Verizon shall provide to LightWave LightWave Usage Information. Such LightWave Usage Information will be provided in accordance with, but only to the extent required by, Applicable Law.
- 8.3.2 LightWave Usage Information will be available to LightWave through the following:
 - 8.3.2.1 Daily Usage File on Data Tape.
 - 8.3.2.2 Daily Usage File through Network Data Mover (NDM).
- 8.3.3 LightWave Usage Information will be provided in an Alliance for Telecommunications Industry Solutions EMI format.
- 8.3.4 Daily Usage File Data Tapes provided pursuant to Section 8.3.2.1 of this Attachment will be issued each Business Day.
- 8.3.5 Except as stated in this Section 8.3, subject to the requirements of Applicable Law, the manner in which, and the frequency with which, LightWave Usage Information will be provided to LightWave shall be determined by Verizon.

8.4 Access to and Use of Verizon OSS Facilities.

- 8.4.1 Verizon OSS Facilities may be accessed and used by LightWave only to the extent necessary for LightWave's access to and use of Verizon OSS Services pursuant to this Agreement.
- 8.4.2 Verizon OSS Facilities may be accessed and used by LightWave only to provide Telecommunications Services to LightWave Customers.
- 8.4.3 LightWave shall restrict access to and use of Verizon OSS Facilities to LightWave. This Section 8 does not grant to LightWave any right or

license to grant sublicenses to other persons, or permission to other persons (except LightWave's employees, agents and contractors, in accordance with Section 8.4.7 of this Attachment), to access or use Verizon OSS Facilities.

- 8.4.4 LightWave shall not (a) alter, modify or damage the Verizon OSS Facilities (including, but not limited to, Verizon software), (b) copy, remove, derive, reverse engineer, or decompile, software from the Verizon OSS Facilities, or (c) obtain access through Verizon OSS Facilities to Verizon databases, facilities, equipment, software, or systems, which are not offered for LightWave's use under this Section 8.
- 8.4.5 LightWave shall comply with all practices and procedures established by Verizon for access to and use of Verizon OSS Facilities (including, but not limited to, Verizon practices and procedures with regard to security and use of access and user identification codes).
- 8.4.6 All practices and procedures for access to and use of Verizon OSS Facilities, and all access and user identification codes for Verizon OSS Facilities: (a) shall remain the property of Verizon; (b) shall be used by LightWave only in connection with LightWave's use of Verizon OSS Facilities permitted by this Section 8; (c) shall be treated by LightWave as Confidential Information of Verizon pursuant to Section 10 of the General Terms and Conditions; and, (d) shall be destroyed or returned by LightWave to Verizon upon the earlier of request by Verizon or the expiration or termination of this Agreement.
- 8.4.7 LightWave's employees, agents and contractors may access and use Verizon OSS Facilities only to the extent necessary for LightWave's access to and use of the Verizon OSS Facilities permitted by this Agreement. Any access to or use of Verizon OSS Facilities by LightWave's employees, agents, or contractors, shall be subject to the provisions of this Agreement, including, but not limited to, Section 10 of the General Terms and Conditions and Section 8.5.3.2 of this Attachment.

8.5 Verizon OSS Information.

- 8.5.1 Subject to the provisions of this Section 8, in accordance with, but only to the extent required by, Applicable Law, Verizon grants to LightWave a non-exclusive license to use Verizon OSS Information.
- 8.5.2 All Verizon OSS Information shall at all times remain the property of Verizon. Except as expressly stated in this Section 8, LightWave shall acquire no rights in or to any Verizon OSS Information.
- 8.5.3 The provisions of this Section 8.5.3 shall apply to all Verizon OSS Information, except (a) LightWave Usage Information, (b) CPNI of LightWave, and (c) CPNI of a Verizon Customer or a LightWave Customer, to the extent the Customer has authorized LightWave to use the CPNI.
 - 8.5.3.1 Verizon OSS Information may be accessed and used by LightWave only to provide Telecommunications Services to LightWave Customers.

- 8.5.3.2 LightWave shall treat Verizon OSS Information that is designated by Verizon, through written or electronic notice (including, but not limited to, through the Verizon OSS Services), as "Confidential" or "Proprietary" as Confidential Information of Verizon pursuant to Section 10 of the General Terms and Conditions.
- 8.5.3.3 Except as expressly stated in this Section 8, this Agreement does not grant to LightWave any right or license to grant sublicenses to other persons, or permission to other persons (except LightWave's employees, agents or contractors, in accordance with Section 8.5.3.4 of this Attachment), to access, use or disclose Verizon OSS Information.
- 8.5.3.4 LightWave's employees, agents and contractors may access, use and disclose Verizon OSS Information only to the extent necessary for LightWave's access to, and use and disclosure of, Verizon OSS Information permitted by this Section 8. Any access to, or use or disclosure of, Verizon OSS Information by LightWave's employees, agents or contractors, shall be subject to the provisions of this Agreement, including, but not limited to, Section 10 of the General Terms and Conditions and Section 8.5.3.2 of this Attachment.
- 8.5.3.5 LightWave's license to use Verizon OSS Information shall expire upon the earliest of: (a) the time when the Verizon OSS Information is no longer needed by LightWave to provide Telecommunications Services to LightWave Customers; (b) termination of the license in accordance with this Section 8; or (c) expiration or termination of this Agreement.
- 8.5.3.6 All Verizon OSS Information received by LightWave shall be destroyed or returned by LightWave to Verizon, upon expiration, suspension or termination of the license to use such Verizon OSS Information.
- 8.5.4 Unless sooner terminated or suspended in accordance with this Agreement or this Section 8 (including, but not limited to, Section 2.2 of the General Terms and Conditions and Section 8.6.1 of this Attachment), LightWave's access to Verizon OSS Information through Verizon OSS Services shall terminate upon the expiration or termination of this Agreement.
- 8.5.5 Audits.
 - 8.5.5.1 Verizon shall have the right (but not the obligation) to audit LightWave to ascertain whether LightWave is complying with the requirements of Applicable Law and this Agreement with regard to LightWave's access to, and use and disclosure of, Verizon OSS Information.
 - 8.5.5.2 Without in any way limiting any other rights Verizon may have under this Agreement or Applicable Law, Verizon shall have the right (but not the obligation) to monitor LightWave

's access to and use of Verizon OSS Information which is made available by Verizon to LightWave pursuant to this Agreement, to ascertain whether LightWave is complying with the requirements of Applicable Law and this Agreement, with regard to LightWave 's access to, and use and disclosure of, such Verizon OSS Information. The foregoing right shall include, but not be limited to, the right (but not the obligation) to electronically monitor LightWave 's access to and use of Verizon OSS Information which is made available by Verizon to LightWave through Verizon OSS Facilities.

8.5.5.3 Information obtained by Verizon pursuant to this Section 8.5.5 shall be treated by Verizon as Confidential Information of LightWave pursuant to Section 10 of the General Terms and Conditions; provided that, Verizon shall have the right (but not the obligation) to use and disclose information obtained by Verizon pursuant to Section 8.5.5 of this Attachment to enforce Verizon's rights under this Agreement or Applicable Law.

8.5.6 LightWave acknowledges that the Verizon OSS Information, by its nature, is updated and corrected on a continuous basis by Verizon, and therefore that Verizon OSS Information is subject to change from time to time.

8.6 Liabilities and Remedies.

8.6.1 Any breach by LightWave, or LightWave's employees, agents or contractors, of the provisions of Sections 8.4 or 8.5 of this Attachment shall be deemed a material breach of this Agreement. In addition, if LightWave or an employee, agent or contractor of LightWave at any time breaches a provision of Sections 8.4 or 8.5 of this Attachment and such breach continues for more than ten (10) days after written notice thereof from Verizon, then, except as otherwise required by Applicable Law, Verizon shall have the right, upon notice to LightWave, to suspend the license to use Verizon OSS Information granted by Section 8.5.1 of this Attachment and/or the provision of Verizon OSS Services, in whole or in part.

8.6.2 LightWave agrees that Verizon would be irreparably injured by a breach of Sections 8.4 or 8.5 of this Attachment by LightWave or the employees, agents or contractors of LightWave, and that Verizon shall be entitled to seek equitable relief, including injunctive relief and specific performance, in the event of any such breach. Such remedies shall not be deemed to be the exclusive remedies for any such breach, but shall be in addition to any other remedies available under this Agreement or at law or in equity.

8.7 Relation to Applicable Law.

The provisions of Sections 8.4, 8.5 and 8.6 of this Attachment with regard to the confidentiality of information shall be in addition to and not in derogation of any provisions of Applicable Law with regard to the confidentiality of information, including, but not limited to, 47 U.S.C. § 222, and are not intended to constitute a waiver by Verizon of any right with regard to protection of the confidentiality of the information of Verizon or Verizon Customers provided by Applicable Law.

8.8 Cooperation.

LightWave, at LightWave's expense, shall reasonably cooperate with Verizon in using Verizon OSS Services. Such cooperation shall include, but not be limited to, the following:

- 8.8.1 Upon request by Verizon, LightWave shall by no later than the fifteenth (15th) day of the last month of each Calendar Quarter submit to Verizon reasonable, good faith estimates of the volume of each type of OSS transaction that LightWave anticipates submitting in each week of the next Calendar Quarter.
- 8.8.2 LightWave shall reasonably cooperate with Verizon in submitting orders for Verizon Services and otherwise using the Verizon OSS Services, in order to avoid exceeding the capacity or capabilities of such Verizon OSS Services.
- 8.8.3 LightWave shall participate in cooperative testing of Verizon OSS Services and shall provide assistance to Verizon in identifying and correcting mistakes, omissions, interruptions, delays, errors, defects, faults, failures, or other deficiencies, in Verizon OSS Services.

8.9 Verizon Access to Information Related to LightWave Customers.

- 8.9.1 Verizon shall have the right to access, use and disclose information related to LightWave Customers that is in Verizon's possession (including, but not limited to, in Verizon OSS Facilities) to the extent such access, use and/or disclosure has been authorized by the LightWave Customer in the manner required by Applicable Law.
- 8.9.2 Upon request by Verizon, LightWave shall negotiate in good faith and enter into a contract with Verizon, pursuant to which Verizon may obtain access to LightWave's operations support systems (including, systems for pre-ordering, ordering, provisioning, maintenance and repair, and billing) and information contained in such systems, to permit Verizon to obtain information related to LightWave Customers (as authorized by the applicable LightWave Customer), to permit Customers to transfer service from one Telecommunications Carrier to another, and for such other purposes as may be permitted by Applicable Law.

8.10 Verizon Pre-OSS Services.

- 8.10.1 As used in this Section 8, "Verizon Pre-OSS Service" means a service which allows the performance of an activity which is comparable to an activity to be performed through a Verizon OSS Service and which Verizon offers to provide to LightWave prior to, or in lieu of, Verizon's provision of the Verizon OSS Service to LightWave. The term "Verizon Pre-OSS Service" includes, but is not limited to, the activity of placing orders for Verizon Services through a telephone facsimile communication.
- 8.10.2 Subject to the requirements of Applicable Law, the Verizon Pre-OSS Services that will be offered by Verizon shall be as determined by Verizon and Verizon shall have the right to change Verizon Pre-OSS Services, from time-to-time, without the consent of LightWave.

8.10.3 Subject to the requirements of Applicable Law, the rates for Verizon Pre-OSS Services shall be as determined by Verizon and shall be subject to change by Verizon from time to time.

8.10.4 The provisions of Sections 8.4 through 8.8 of this Attachment shall also apply to Verizon Pre-OSS Services. For the purposes of this Section 8.10: (a) references in Sections 8.4 through 8.8 of this Attachment to Verizon OSS Services shall be deemed to include Verizon Pre-OSS Services; and, (b) references in Sections 8.4 through 8.8 of this Attachment to Verizon OSS Information shall be deemed to include information made available to LightWave through Verizon Pre-OSS Services.

8.11 Cancellations.

Verizon may cancel orders for service which have had no activity within thirty-one (31) consecutive calendar days after the original service due date.

9. Poles, Ducts, Conduits and Rights-of-Way

9.1 Verizon shall afford LightWave non-discriminatory access to poles, ducts, conduits and rights-of-way owned or controlled by Verizon. Such access shall be provided in accordance with, but only to the extent required by, Applicable Law, pursuant to Verizon's applicable Tariffs, or, in the absence of an applicable Verizon Tariff, Verizon's generally offered form of license agreement, or, in the absence of such a Tariff and license agreement, a mutually acceptable agreement to be negotiated by the Parties.

9.2 LightWave shall afford Verizon non-discriminatory access to poles, ducts, conduits and rights-of-way owned or controlled by LightWave. Such access shall be provided pursuant to LightWave's applicable Tariffs, or, in the absence of an applicable LightWave Tariff, LightWave's generally offered form of license agreement, or, in the absence of such a Tariff and license agreement, a mutually acceptable agreement to be negotiated by the Parties. The terms, conditions and prices offered to Verizon by LightWave for such access shall be no less favorable than the terms, conditions and prices offered to LightWave by Verizon for access to poles, ducts, conduits and rights of way owned or controlled by Verizon.

10. Telephone Numbers

10.1 This Section applies in connection with LightWave Customers served by Telecommunications Services provided by Verizon to LightWave for resale or a Local Switching Network Element provided by Verizon to LightWave.

10.2 LightWave's use of telephone numbers shall be subject to Applicable Law the rules of the North American Numbering Council and the North American Numbering Plan Administrator, the applicable provisions of this Agreement (including, but not limited to, this Section 10), and Verizon's practices and procedures for use and assignment of telephone numbers, as amended from time-to-time.

10.3 Subject to Sections 10.2 and 10.4 of this Attachment, if a Customer of either Verizon or LightWave who is served by a Verizon Telecommunications Service ("VTS") or a Verizon Local Switching Network Element ("VLSNE") changes the LEC that serves the Customer using such VTS or VLSNE (including a change from Verizon to LightWave, from LightWave to Verizon, or from LightWave to a

LEC other than Verizon), after such change, the Customer may continue to use with such VTS or VLSNE the telephone numbers that were assigned to the VTS or VLSNE for the use of such Customer by Verizon immediately prior to the change.

- 10.4 Verizon shall have the right to change the telephone numbers used by a Customer if at any time: (a) the Customer requests service at a new location, that is not served by the Verizon switch and the Verizon rate center from which the Customer previously had service; (b) continued use of the telephone numbers is not technically feasible; or, (c) in the case of Telecommunications Service provided by Verizon to LightWave for resale, the type or class of service subscribed to by the Customer changes.
- 10.5 If service on a VTS or VLSNE provided by Verizon to LightWave under this Agreement is terminated and the telephone numbers associated with such VTS or VLSNE have not been ported to a LightWave switch, the telephone numbers shall be available for reassignment by Verizon to any person to whom Verizon elects to assign the telephone numbers, including, but not limited to, Verizon, Verizon Customers, LightWave, or Telecommunications Carriers other than Verizon and LightWave.
- 10.6 LightWave may reserve telephone numbers only to the extent Verizon's Customers may reserve telephone numbers.

11. Routing for Operator Services and Directory Assistance Traffic

For a Verizon Telecommunications Service dial tone line purchased by LightWave for resale pursuant to the Resale Attachment, upon request by LightWave, Verizon will establish an arrangement that will permit LightWave to route the LightWave Customer's calls for operator and directory assistance services to a provider of operator and directory assistance services selected by LightWave. Verizon will provide this routing arrangement in accordance with, but only to the extent required by, Applicable Law. Verizon will provide this routing arrangement pursuant to an appropriate written request submitted by LightWave and a mutually agreed-upon schedule. This routing arrangement will be implemented at LightWave's expense, with charges determined on an individual case basis. In addition to charges for initially establishing the routing arrangement, LightWave will be responsible for ongoing monthly and/or usage charges for the routing arrangement. LightWave shall arrange, at its own expense, the trunking and other facilities required to transport traffic to LightWave's selected provider of operator and directory assistance services.

INTERCONNECTION ATTACHMENT

1. General

Each Party ("Providing Party") shall provide to the other Party, in accordance with this Agreement, the Providing Party's applicable Tariffs, and Applicable Law, interconnection with the Providing Party's network for the transmission and routing of Telephone Exchange Service and Exchange Access.

2. Methods for Interconnection and Trunk Types

2.1 Methods for Interconnection.

- 2.1.1 In accordance with, but only to the extent required by, Applicable Law, the Parties shall provide interconnection of their networks at any technically feasible point as specified in this Agreement.
- 2.1.2 Each Party ("Originating Party"), at its own expense, shall provide for delivery to the relevant IP of the other Party ("Receiving Party") Reciprocal Compensation Traffic and Measured Internet Traffic that the Originating Party wishes to deliver to the Receiving Party.
- 2.1.3 LightWave may use any of the following methods for interconnection with Verizon:
 - 2.1.3.1 a Collocation arrangement LightWave has established at the Verizon-IP pursuant to the Collocation Attachment; and/or
 - 2.1.3.2 a Collocation arrangement that has been established separately at the Verizon-IP by a third party and that is used by LightWave to interconnect with Verizon; and/or
 - 2.1.3.3 an Entrance Facility and transport obtained from Verizon (and any necessary multiplexing) pursuant to the applicable Verizon access Tariff, from the LightWave network to the Verizon-IP.
- 2.1.4 LightWave may order from Verizon, in accordance with the rates, terms and conditions set forth in this Agreement and applicable Verizon Tariff(s) (or in the absence of applicable rates, terms and conditions set forth in this Agreement and Verizon Tariff(s), in accordance with rates, terms and conditions to be negotiated by the Parties), any of the methods for interconnection specified in Section 2.1.3 of this Attachment.
- 2.1.5 Verizon may use any of the following methods for interconnection with LightWave:
 - 2.1.5.1 a Collocation arrangement Verizon has established at the LightWave-IP pursuant to the Collocation Attachment, or an interconnection arrangement Verizon has established at the LightWave-IP that is operationally equivalent to a Collocation arrangement (including, but not limited to, a Verizon provided Entrance Facility); and/or

- 2.1.5.2 a Collocation arrangement that has been established separately at the LightWave -IP by a third party and that is used by Verizon to interconnect with LightWave; and/or
 - 2.1.5.3 a non-distance sensitive Entrance Facility obtained from LightWave (and any necessary multiplexing), from the Verizon network to the LightWave -IP (including, but not limited to, at Verizon's election, an Entrance Facility accessed by Verizon through interconnection at a Collocation arrangement that LightWave has established at a Verizon Wire Center pursuant to the Collocation Attachment, or through interconnection at a Collocation arrangement that has been established separately at a Verizon Wire Center by a third party and that is used by LightWave), or an Entrance Facility obtained from a third party that has established an interconnection arrangement with LightWave.
- 2.1.6 Verizon may order from LightWave, in accordance with the rates, terms and conditions set forth in this Agreement and applicable LightWave Tariff(s) (or in the absence of applicable rates, terms and conditions set forth in this Agreement and LightWave Tariff(s), in accordance with rates, terms and conditions to be negotiated by the Parties), any of the methods for interconnection specified in Section 2.1.5 of this Attachment.

2.2 Trunk Types.

- 2.2.1 In interconnecting their networks pursuant to this Attachment, the Parties will use, as appropriate, the following separate and distinct trunk groups:
- 2.2.1.1 Interconnection Trunks for the transmission and routing of Reciprocal Compensation Traffic, translated LEC IntraLATA toll free service access code (e.g., 800/888/877) traffic, and IntraLATA Toll Traffic, between their respective Telephone Exchange Service Customers, Tandem Transit Traffic, and, Measured Internet Traffic, all in accordance with Sections 5 through 8 of this Attachment;
 - 2.2.1.2 Access Toll Connecting Trunks for the transmission and routing of Exchange Access traffic, including translated InterLATA toll free service access code (e.g., 800/888/877) traffic, between LightWave Telephone Exchange Service Customers and purchasers of Switched Exchange Access Service via a Verizon access Tandem in accordance with Sections 9 through 11 of this Attachment; and
 - 2.2.1.3 Miscellaneous Trunk Groups as mutually agreed to by the Parties, including, but not limited to: (a) choke trunks for traffic congestion and testing; and, (b) untranslated IntraLATA/InterLATA toll free service access code (e.g. 800/888/877) traffic.
- 2.2.2 Other types of trunk groups may be used by the Parties as provided in other Attachments to this Agreement (e.g., 911/E911 Trunks; Information Services Trunks) or in other separate agreements between

the Parties (e.g., Directory Assistance Trunks, Operator Services Trunks, BLV/BLVI Trunks).

- 2.2.3 Except as otherwise provided in this Agreement, the Parties will mutually agree upon where One-Way Interconnection Trunks (trunks with traffic going in one direction, including one-way trunks and uni-directional two-way trunks) and/or Two-Way Interconnection Trunks (trunks with traffic going in both directions) will be deployed.
- 2.2.4 In the event the volume of traffic between a Verizon End Office and the LightWave network, which is carried by a Final Meet Point B Interconnection Trunk group, exceeds the Centium Call Second (Hundred Call Second) busy hour equivalent of one (1) DS-1 at any time and/or 200,000 minutes of use for a single month: (a) if One-Way Interconnection Trunks are used, the originating Party shall promptly establish Meet Point A One-Way Interconnection Trunk groups between the Verizon End Office and the LightWave network; or, (b) if Two-Way Interconnection Trunks are used, LightWave shall promptly submit an ASR to Verizon to establish new Meet Point A Two-Way Interconnection Trunk group(s) between that Verizon End Office and the LightWave network.
- 2.2.5 Except as otherwise agreed in writing by the Parties, the total number of Meet Point B Interconnection Trunks between LightWave's network and a Verizon Tandem will be limited to a maximum of 240 trunks. In the event that the volume of traffic between LightWave's network and a Verizon Tandem exceeds, or reasonably can be expected to exceed, the capacity of the 240 trunks, LightWave shall promptly submit an ASR to Verizon to establish new or additional Meet Point A Trunks to insure that the volume of traffic between LightWave's network and the Verizon Tandem does not exceed the capacity of the 240 trunks.

2.3 One-Way Interconnection Trunks.

- 2.3.1 Where the Parties have agreed to use One-Way Interconnection Trunks for the delivery of traffic from LightWave to Verizon, LightWave, at LightWave's own expense, shall:
 - 2.3.1.1 provide its own facilities for delivery of the traffic to the LightWave Collocation arrangement at the Verizon-IP or to the third-party Collocation arrangement used by LightWave at the Verizon-IP; and/or
 - 2.3.1.2 obtain transport for delivery of the traffic to the LightWave Collocation arrangement at the Verizon-IP or to the third-party Collocation arrangement used by LightWave at the Verizon-IP (a) from a third-party, or, (b) if Verizon offers such transport pursuant to this Agreement or an applicable Verizon Tariff, from Verizon; and/or
 - 2.3.1.3 order the One-Way Trunks from Verizon in accordance with the rates, terms and conditions set forth in this Agreement and applicable Verizon Tariffs, for installation on an Entrance Facility obtained by LightWave from Verizon pursuant to Sections 2.1.3.3 and 2.1.4 of this Attachment, and also order multiplexing and transport from Verizon pursuant to Sections 2.1.3.3 and 2.1.4 of this Attachment.

- 2.3.1.3.1 For each Tandem One -Way Interconnection Trunk group provided by Verizon to LightWave with a utilization level of less than sixty percent (60%), unless the Parties agree otherwise, LightWave will promptly submit ASRs to disconnect a sufficient number of Interconnection Trunks to attain a utilization level of approximately sixty percent (60%).
- 2.3.2 Where the Parties have agreed to use One-Way Interconnection Trunks for the delivery of traffic from Verizon to LightWave, Verizon, at Verizon's own expense, shall:
 - 2.3.2.1 provide its own facilities for delivery of the traffic to the Verizon Collocation arrangement or interconnection arrangement at the LightWave -IP or to the third-party Collocation arrangement used by Verizon at the LightWave-IP; or
 - 2.3.2.2 obtain transport for delivery of the traffic to the Verizon Collocation arrangement or interconnection arrangement at the LightWave-IP or to the third-party Collocation arrangement used by Verizon at the LightWave-IP (a) from a third-party, or, (b) if LightWave offers such transport pursuant to this Agreement or an applicable LightWave Tariff, from LightWave; or
 - 2.3.2.3 order the One-Way Trunks from LightWave in accordance with the rates, terms and conditions set forth in this Agreement and applicable LightWave Tariffs for installation on an Entrance Facility obtained by Verizon from LightWave pursuant to Sections 2.1.5.3 and 2.1.6 of this Attachment, or obtain the One-Way Trunks from a third-party that has established an interconnection arrangement with LightWave.

2.4 Two-Way Interconnection Trunks.

- 2.4.1 Where the Parties have agreed to use Two-Way Interconnection Trunks for the exchange of traffic between Verizon and LightWave, LightWave shall order from Verizon, and Verizon shall provide, the Two-Way Interconnection Trunks and the Entrance Facility, on which such Trunks will ride, and transport and multiplexing, in accordance with the rates, terms and conditions set forth in this Agreement and Verizon's applicable Tariffs.
- 2.4.2 Prior to ordering any Two-Way Interconnection Trunks from Verizon, LightWave shall meet with Verizon to conduct a joint planning meeting ("Joint Planning Meeting"). At that Joint Planning Meeting, each Party shall provide to the other Party originating Centium Call Second (Hundred Call Second) information, and the Parties shall mutually agree on the appropriate initial number of Two-Way Meet Point A (high usage) and Meet Point B (final) Interconnection Trunks and the interface specifications at the Point of Interconnection (POI). Where the Parties have agreed to convert existing One-Way Interconnection Trunks to Two-Way Interconnection Trunks, at the Joint Planning Meeting, the Parties shall also mutually agree on the conversion

process and project intervals for conversion of such One-Way Interconnection Trunks to Two-Way Interconnection Trunks.

- 2.4.3 Two-Way Interconnection Trunks shall be from a Verizon End Office or Tandem to a mutually agreed upon POI.
- 2.4.4 On a semi-annual basis, LightWave shall submit a good faith forecast to Verizon of the number of Meet Point A (high usage) and Meet Point B (final) Two-Way Interconnection Trunks that LightWave anticipates Verizon will need to provide during the ensuing two (2) year period to carry traffic from LightWave to Verizon and from Verizon to LightWave. LightWave's trunk forecasts shall conform to the Verizon CLEC trunk forecasting guidelines as in effect at that time.
- 2.4.5 The Parties shall meet (telephonically or in person) from time to time, as needed, to review data on Meet Point A (high usage) and Meet Point B (final) Two-Way Interconnection Trunks to determine the need for new trunk groups and to plan any necessary changes in the number of Two-Way Interconnection Trunks.
- 2.4.6 Two-Way Interconnection Trunks shall have SS7 Common Channel Signaling. The Parties agree to utilize B8ZS and Extended Super Frame (ESF) DS1 facilities, where available.
- 2.4.7 With respect to Meet Point A (high usage) Two-Way Interconnection Trunks, both Parties shall use an economic Centium Call Second (Hundred Call Second) equal to five (5).
- 2.4.8 Meet Point B Two-Way Interconnection Trunk groups that connect to a Verizon access Tandem shall be engineered using a design blocking objective of Neal-Wilkinson B.005 during the average time consistent busy hour. Meet Point B Two-Way Interconnection Trunk groups that connect to a Verizon local Tandem shall be engineered using a design blocking objective of Neal-Wilkinson B.01 during the average time consistent busy hour. Verizon and LightWave shall engineer Two-Way Interconnection Trunks using BOC Notes on the LEC Networks SR-TSV-002275.
- 2.4.9 The performance standard for Meet Point B Two-Way Interconnection Trunk groups shall be that no such Interconnection Trunk group will exceed its design blocking objective (B.005 or B.01, as applicable) for three (3) consecutive calendar traffic study months.
- 2.4.10 LightWave shall determine and order the number of Two-Way Interconnection Trunks that are required to meet the applicable design blocking objective for all traffic carried on each Two-Way Interconnection Trunk group. LightWave shall order Two-Way Interconnection Trunks by submitting ASRs to Verizon setting forth the number of Two-Way Interconnection Trunks to be installed and the requested installation dates within Verizon's effective standard intervals or negotiated intervals, as appropriate. LightWave shall complete ASRs in accordance with OBF Guidelines as in effect from time to time.
- 2.4.11 Verizon may (but shall not be obligated to) monitor Two-Way Interconnection Groups using service results for the applicable design blocking objective. If Verizon observes blocking in excess of the

applicable design objective on any Meet Point B (final) Two-Way Interconnection Trunk group and LightWave has not notified Verizon that it has corrected such blocking, Verizon may submit to LightWave a Trunk Group Service Request directing LightWave to remedy the blocking. Upon receipt of a Trunk Group Service Request, LightWave will complete an ASR to establish or augment the End Office Two-Way Interconnection Trunk Group(s), or, if mutually agreed, to augment the Tandem Two-Way Interconnection Trunk Group with excessive blocking and submit the ASR to Verizon within five (5) Business Days.

- 2.4.12 The Parties will review all Meet Point B Two-Way Interconnection Trunk groups that reach a utilization level of seventy percent (70%), or greater, to determine whether those groups should be augmented. LightWave will promptly augment all Meet Point B Two-Way Interconnection Trunk groups that reach a utilization level of eighty percent (80%) by submitting ASRs for additional trunks sufficient to attain a utilization level of approximately seventy percent (70%), unless the Parties agree that additional trunking is not required. For each Meet Point B Two-Way Interconnection Trunk group with a utilization level of less than sixty percent (60%), unless the Parties agree otherwise, LightWave will promptly submit ASRs to disconnect a sufficient number of Interconnection Trunks to attain a utilization level of approximately sixty percent (60%) for each respective group, unless the Parties agree that the Two-Way Interconnection Trunks should not be disconnected. In the event LightWave fails to submit an ASR for Two-Way Interconnection Trunks in conformance with this section, Verizon may bill LightWave for the excess Interconnection Trunks at the applicable Verizon rates.
- 2.4.13 Because Verizon will not be in control of when and how many Two-Way Interconnection Trunks are established between its network and LightWave's network, Verizon's performance in connection with these Two-Way Interconnection Trunk groups shall not be subject to any performance measurements and remedies under this Agreement, and, except as otherwise required by Applicable Law, under any FCC or Commission approved carrier-to-carrier performance assurance guidelines or plan.
- 2.4.14 Upon three (3) months prior written notice and with the mutual agreement of the Parties, either Party may withdraw its traffic from a Two-Way Interconnection Trunk group and install One-Way Interconnection Trunks to the other Party's relevant POI, provided that, if a Party has failed to comply with this Agreement with regard to Two-Way Interconnection Trunks, the other Party may upon three (3) months prior written notice and without mutual agreement of the non-complying Party, withdraw its traffic from a Two-Way Interconnection Trunk group and install One-Way Interconnection Trunks to the non-complying Party's relevant POI.
- 2.4.15 LightWave will route its traffic to Verizon over the Meet Point A and/or Meet Point B Two-Way Interconnection Trunks in accordance with SR-TAP-000191, including but not limited to those standards requiring that a call from LightWave to a Verizon End Office will first be routed to the Meet Point A Interconnection Trunk group between LightWave and the Verizon End Office.

2.4.16 When the Parties implement Two-Way Interconnection Trunks, the Parties will work cooperatively to calculate a Proportionate Percentage of Use ("PPU") factor for each facility on which the Two-Way Interconnection Trunks ride, based on the total number of minutes of traffic that each Party sends over the Two-Way Interconnection Trunks riding on that facility. LightWave will pay a percentage of Verizon's monthly recurring charges for each facility on which the Two-Way Interconnection Trunks ride equal to LightWave's percentage of use of that facility as shown by the PPU. The PPU shall not be applied to calculate the charges for any portion of a facility that is on LightWave's side of LightWave's-IP, which charges shall be solely the financial responsibility of LightWave. During the first full calendar quarter (and any partial calendar quarter preceding such first full calendar quarter) after the first Two-Way Interconnection Trunk is established on a facility, the PPU for that facility will be fifty percent (50%) for each Party. For each calendar quarter thereafter, the Parties shall recalculate the PPU using actual traffic usage data for the preceding calendar quarter.

Non-recurring charges for the facility on which the Two-Way Interconnection Trunks ride shall be apportioned as follows: (a) for the portion of the facility on Verizon's side of the LightWave-IP, LightWave shall pay fifty percent (50%) of the Verizon non-recurring charges; and, (b) for the portion of the facility on LightWave's side of the LightWave-IP, LightWave shall be solely responsible for the non-recurring charges.

Notwithstanding the foregoing provisions of this Section 2.4.16, if LightWave fails to provide LightWave-IPs in accordance with this Agreement, LightWave will be responsible for one hundred percent (100%) of all recurring and non-recurring charges associated with Two-Way Interconnection Trunk groups until LightWave establishes such LightWave-IPs.

3. Alternative Interconnection Arrangements

- 3.1 In addition to the foregoing methods of Interconnection, and subject to mutual agreement of the Parties, the Parties may agree to establish an End Point Fiber Meet arrangement, which may include a SONET backbone with an optical interface at the OC-n level in accordance with the terms of this Section. The Fiber Distribution Frame at the LightWave location shall be designated as the POI for both Parties.
- 3.2 The establishment of any End Point Fiber Meet arrangement is expressly conditioned upon the Parties' reaching prior written agreement on routing, appropriate sizing and forecasting, equipment, ordering, provisioning, maintenance, repair, testing, augment, and compensation, procedures and arrangements, reasonable distance limitations, and on any other arrangements necessary to implement the End Point Fiber Meet arrangement.
- 3.3 Except as otherwise agreed by the Parties, End Point Fiber Meet arrangements shall be used only for the termination of Reciprocal Compensation Traffic, Measured Internet Traffic, and IntraLATA Toll Traffic.

4. Initiating Interconnection

- 4.1 If LightWave determines to offer Telephone Exchange Services and to interconnect with Verizon in any LATA in which Verizon also offers Telephone Exchange Services and in which the Parties are not already interconnected pursuant to this Agreement, LightWave shall provide written notice to Verizon of the need to establish Interconnection in such LATA pursuant to this Agreement.
- 4.2 The notice provided in Section 4.1 of this Attachment shall include (a) the initial Routing Point(s); (b) the applicable LightWave-IPs to be established in the relevant LATA in accordance with this Agreement; (c) LightWave's intended Interconnection activation date; (d) a forecast of LightWave's trunking requirements conforming to Section 14.3 of this Attachment; and (e) such other information as Verizon shall reasonably request in order to facilitate Interconnection.
- 4.3 The interconnection activation date in the new LATA shall be mutually agreed to by the Parties after receipt by Verizon of all necessary information as indicated above. Within ten (10) Business Days of Verizon's receipt of LightWave's notice provided for in Section 4.1 of this Attachment, Verizon and LightWave shall confirm the Verizon-IP(s), the LightWave-IP(s) and the mutually agreed upon Interconnection activation date for the new LATA.

5. Transmission and Routing of Telephone Exchange Service Traffic

5.1 Scope of Traffic.

Section 5 prescribes parameters for Interconnection Trunks used for Interconnection pursuant to Sections 2 through 4 of this Attachment.

5.2 Trunk Group Connections and Ordering.

- 5.2.1 For One-Way or Two-Way Interconnection Trunks, both Parties shall use either a DS-1 or DS-3 facilities interface at the POI. When and where an STS-1 interface is available, the Parties may agree to use such an interface. Upon mutual agreement, the Parties may agree to use an optical interface (such as OC-n).
- 5.2.2 When One-Way or Two-Way Interconnection Trunks are provisioned using a DS-3 interface facility, then LightWave shall order the multiplexed DS-3 facilities to the Verizon Central Office that is designated in the NECA 4 Tariff as an Intermediate Hub location, unless otherwise agreed to in writing by Verizon. The specific NECA 4 Intermediate Hub location to be used for One-Way or Two-Way Interconnection Trunks shall be in the appropriate Tandem subtending area based on the LERG. In the event the appropriate DS-3 Intermediate Hub is not used, then LightWave shall pay 100% of the facility charges for the One-Way or Two-Way Interconnection Trunks.
- 5.2.3 Each Party will identify its Carrier Identification Code, a three or four digit numeric code obtained from Telcordia, to the other Party when ordering a trunk group.
- 5.2.4 Unless mutually agreed to by both Parties, each Party will outpulse ten (10) digits to the other Party.
- 5.2.5 Each Party will use commercially reasonable efforts to monitor trunk groups under its control and to augment those groups using generally accepted trunk-engineering standards so as to not exceed blocking

objectives. Each Party agrees to use modular trunk-engineering techniques for trunks subject to this Attachment.

5.3 Switching System Hierarchy and Trunking Requirements.

For purposes of routing LightWave traffic to Verizon, the subtending arrangements between Verizon Tandem Switches and Verizon End Office Switches shall be the same as the Tandem/End Office subtending arrangements Verizon maintains for the routing of its own or other carriers' traffic. For purposes of routing Verizon traffic to LightWave, the subtending arrangements between LightWave Tandem Switches and LightWave End Office Switches shall be the same as the Tandem/End Office subtending arrangements that LightWave maintains for the routing of its own or other carriers' traffic.

5.4 Signaling.

Each Party will provide the other Party with access to its databases and associated signaling necessary for the routing and completion of the other Party's traffic in accordance with the provisions contained in the Unbundled Network Element Attachment or applicable access tariff.

5.5 Grades of Service.

The Parties shall initially engineer and shall monitor and augment all trunk groups consistent with the Joint Process as set forth in Section 14.1 of this Attachment.

6. Traffic Measurement and Billing over Interconnection Trunks

6.1 For billing purposes, each Party shall pass Calling Party Number (CPN) information on at least ninety-five percent (95%) of calls carried over the Interconnection Trunks.

6.1.1 As used in this Section 6, "Traffic Rate" means the applicable Reciprocal Compensation Traffic rate, Measured Internet Traffic rate, intrastate Switched Exchange Access Service rate, interstate Switched Exchange Access Service rate, or intrastate/interstate Tandem Transit Traffic rate, as provided in the Pricing Attachment, an applicable Tariff, or, for Measured Internet Traffic, the FCC Internet Order.

6.1.2 If the originating Party passes CPN on ninety-five percent (95%) or more of its calls, the receiving Party shall bill the originating Party the Traffic Rate applicable to each relevant minute of traffic for which CPN is passed. For any remaining (up to 5%) calls without CPN information, the receiving Party shall bill the originating Party for such traffic at the Traffic Rate applicable to each relevant minute of traffic, in direct proportion to the minutes of use of calls passed with CPN information.

6.1.3 If the originating Party passes CPN on less than ninety-five percent (95%) of its calls and the originating Party chooses to combine Reciprocal Compensation Traffic and Toll Traffic on the same trunk group, the receiving Party shall bill the higher of its interstate Switched Exchange Access Service rates or its intrastate Switched Exchange Access Services rates for all traffic that is passed without CPN, unless the Parties agree that other rates should apply to such traffic.

- 6.2 At such time as a receiving Party has the capability, on an automated basis, to use such CPN to classify traffic delivered over Interconnection Trunks by the other Party by Traffic Rate type (e.g., Reciprocal Compensation Traffic/Measured Internet Traffic, intrastate Switched Exchange Access Service, interstate Switched Exchange Access Service, or intrastate/interstate Tandem Transit Traffic), such receiving Party shall bill the originating Party the Traffic Rate applicable to each relevant minute of traffic for which CPN is passed. If the receiving Party lacks the capability, on an automated basis, to use CPN information on an automated basis to classify traffic delivered by the other Party by Traffic Rate type, the originating Party will supply Traffic Factor 1 and Traffic Factor 2. The Traffic Factors shall be supplied in writing by the originating Party within thirty (30) days of the Effective Date and shall be updated in writing by the originating Party quarterly. Measurement of billing minutes for purposes of determining terminating compensation shall be in conversation seconds (the time in seconds that the Parties equipment is used for a completed call, measured from the receipt of answer supervision to the receipt of disconnect supervision). Measurement of billing minutes for originating toll free service access code (e.g., 800/888/877) calls shall be in accordance with applicable Tariffs. Determination as to whether traffic is Reciprocal Compensation Traffic or Measured Internet Traffic shall be made in accordance with Paragraphs 8 and 79, and other applicable provisions, of the FCC Internet Order (including, but not limited to, in accordance with the rebuttable presumption established by the FCC Internet Order that traffic delivered to a carrier that exceeds a 3:1 ratio of terminating to originating traffic is Measured Internet Traffic, and in accordance with the process established by the FCC Internet Order for rebutting such presumption before the Commission).
- 6.3 Each Party reserves the right to audit all Traffic, up to a maximum of two audits per calendar year, to ensure that rates are being applied appropriately; provided, however, that either Party shall have the right to conduct additional audit(s) if the preceding audit disclosed material errors or discrepancies. Each Party agrees to provide the necessary Traffic data in conjunction with any such audit in a timely manner.
- 6.4 Nothing in this Agreement shall be construed to limit either Party's ability to designate the areas within which that Party's Customers may make calls which that Party rates as "local" in its Customer Tariffs.

7. Reciprocal Compensation Arrangements Pursuant to Section 251(b)(5) of the Act

7.1 Reciprocal Compensation Traffic Interconnection Points.

7.1.1 Except as otherwise agreed by the Parties, the Interconnection Points ("IPs") from which LightWave will provide transport and termination of Reciprocal Compensation Traffic to its Customers ("LightWave-IPs") shall be as follows:

7.1.1.1 For each LATA in which LightWave requests to interconnect with Verizon, except as otherwise agreed by the Parties, LightWave shall establish a LightWave IP in each Verizon Local Calling Area (as defined below) where LightWave chooses to assign telephone numbers to its Customers. LightWave shall establish such LightWave-IP consistent with the methods of interconnection and interconnection trunking architectures that it will use pursuant to Section 2 or Section 3 of this Attachment. For purposes of this

Section 7.1.1.1, Verizon Local Calling Areas shall be as defined in Verizon's effective Customer tariffs and include a non-optional Extended Local Calling Scope Arrangement, but do not include an optional Extended Local Calling Scope Arrangement. If LightWave fails to establish IPs in accordance with the preceding sentences of this Section 7.1.1.1, (a) Verizon may pursue available dispute resolution mechanisms; and, (b) LightWave shall bill and Verizon shall pay the lesser of the negotiated intercarrier compensation rate or the End Office Reciprocal Compensation rate for the relevant traffic less Verizon's transport rate, tandem switching rate (to the extent traffic is tandem switched), and other costs (to the extent that Verizon purchases such transport from LightWave or a third party), from the originating Verizon End Office to the receiving LightWave-IP.

7.1.1.2 At any time that LightWave establishes a Collocation site at a Verizon End Office Wire Center in a LATA in which LightWave is interconnected or requesting interconnection with Verizon, either Party may request in writing that such LightWave Collocation site be established as the LightWave-IP for traffic originated by Verizon Customers served by that End Office. Upon such request, the Parties shall negotiate in good faith mutually acceptable arrangements for the transition to such LightWave-IP. If the Parties have not reached agreement on such arrangements within thirty (30) days, (a) either Party may pursue available dispute resolution mechanisms; and, (b) LightWave shall bill and Verizon shall pay the lesser of the negotiated intercarrier compensation rate or the End Office Reciprocal Compensation rate for the relevant traffic less Verizon's transport rate, tandem switching rate (to the extent traffic is tandem switched), and other costs (to the extent that Verizon purchases such transport from LightWave or a third party), from the originating Verizon End Office to the receiving LightWave-IP.

7.1.1.3 In any LATA where the Parties are already interconnected prior to the effective date of this Agreement, LightWave may maintain existing CLEC-IPs, except that Verizon may request in writing to transition such LightWave-IPs to the LightWave-IPs described in subsections 7.1.1.1 and 7.1.1.2 of this Attachment. Upon such request, the Parties shall negotiate mutually satisfactory arrangements for the transition to CLEC-IPs that conform to subsections 7.1.1.1 and 7.1.1.2 of this Attachment. If the Parties have not reached agreement on such arrangements within thirty (30) days, (a) either Party may pursue available dispute resolution mechanisms; and, (b) LightWave shall bill and Verizon shall pay only the lesser of the negotiated intercarrier compensation rate or the End Office reciprocal compensation rate for relevant traffic, less Verizon's transport rate, tandem switching rate (to the extent traffic is tandem switched), and other costs (to the extent that Verizon purchases such transport from LightWave or a third

party), from Verizon's originating End Office to the LightWave IP.

7.1.2 Except as otherwise agreed by the Parties, the Interconnection Points ("IPs") from which Verizon will provide transport and termination of Reciprocal Compensation Traffic to its Customers ("Verizon-IPs") shall be as follows:

7.1.2.1 For Reciprocal Compensation Traffic delivered by LightWave to the Verizon Tandem subtended by the terminating End Office serving the Verizon Customer, the Verizon-IP will be the Verizon Tandem switch.

7.1.2.2 For Reciprocal Compensation Traffic delivered by LightWave to the Verizon terminating End Office serving the Verizon Customer, the Verizon-IP will be the Verizon End Office switch.

7.1.3 Should either Party offer additional IPs to any Telecommunications Carrier that is not a Party to this Agreement, the other Party may elect to deliver traffic to such IPs for the NXXs or functionalities served by those IPs. To the extent that any such LightWave -IP is not located at a Collocation site at a Verizon Tandem Wire Center or Verizon End Office Wire Center, then LightWave shall permit Verizon to establish physical Interconnection through collocation or other operationally comparable arrangements acceptable to Verizon at the LightWave-IP.

7.1.4 Each Party is responsible for delivering its Reciprocal Compensation Traffic that is to be terminated by the other Party to the other Party's relevant IP.

7.2 Reciprocal Compensation.

The Parties shall compensate each other for the transport and termination of Reciprocal Compensation Traffic delivered to the terminating Party in accordance with Section 251(b)(5) of the Act at the rates stated in the Pricing Attachment. These rates are to be applied at the LightWave-IP for traffic delivered by Verizon for termination by LightWave, and at the Verizon-IP for traffic delivered by LightWave for termination by Verizon. Except as expressly specified in this Agreement, no additional charges shall apply for the termination from the IP to the Customer of Reciprocal Compensation Traffic delivered to the Verizon-IP by LightWave or the LightWave-IP by Verizon. When such Reciprocal Compensation Traffic is delivered over the same trunks as Toll Traffic, any port or transport or other applicable access charges related to the delivery of Toll Traffic from the IP to an end user shall be prorated to be applied only to the Toll Traffic. The designation of traffic as Reciprocal Compensation Traffic for purposes of Reciprocal Compensation shall be based on the actual originating and terminating points of the complete end-to-end communication.

7.3 Traffic Not Subject to Reciprocal Compensation.

7.3.1 Reciprocal Compensation shall not apply to interstate or intrastate Exchange Access, Information Access, or exchange services for Exchange Access or Information Access.

7.3.2 Reciprocal Compensation shall not apply to Internet Traffic.

- 7.3.3 Reciprocal Compensation shall not apply to Toll Traffic, including, but not limited to, calls originated on a 1+ presubscription basis, or on a casual dialed (10XXX/101XXXX) basis.
- 7.3.4 Reciprocal Compensation shall not apply to Optional Extended Local Calling Area Traffic.
- 7.3.5 Reciprocal Compensation shall not apply to special access, private line, or any other traffic that is not switched by the terminating Party.
- 7.3.6 Reciprocal Compensation shall not apply to Tandem Transit Traffic.
- 7.3.7 Reciprocal Compensation shall not apply to Voice Information Service Traffic (as defined in Section 5 of the Additional Services Attachment).
- 7.4 The Reciprocal Compensation rates (including, but not limited to, the Reciprocal Compensation per minute of use charges) billed by LightWave to Verizon shall not exceed the Reciprocal Compensation rates (including, but not limited to, Reciprocal Compensation per minute of use charges) billed by Verizon to LightWave.

8. Other Types of Traffic

- 8.1 Notwithstanding any other provision of this Agreement or any Tariff: (a) the Parties' rights and obligations with respect to any intercarrier compensation that may be due in connection with their exchange of Internet Traffic shall be governed by the terms of the FCC Internet Order and other applicable FCC orders and FCC Regulations; and, (b) a Party shall not be obligated to pay any intercarrier compensation for Internet Traffic that is in excess of the intercarrier compensation for Internet Traffic that such Party is required to pay under the FCC Internet Order and other applicable FCC orders and FCC Regulations.
- 8.2 Subject to Section 8.1 of this Attachment, interstate and intrastate Exchange Access, Information Access, exchange services for Exchange Access or Information Access, and Toll Traffic, shall be governed by the applicable provisions of this Agreement and applicable Tariffs.
- 8.3 For any traffic originating with a third party carrier and delivered by LightWave to Verizon, LightWave shall pay Verizon the same amount that such third party carrier would have been obligated to pay Verizon for termination of that traffic at the location the traffic is delivered to Verizon by LightWave.
- 8.4 Any traffic not specifically addressed in this Agreement shall be treated as required by the applicable Tariff of the Party transporting and/or terminating the traffic.
- 8.5 Interconnection Points.
 - 8.5.1 The IP of a Party ("Receiving Party") for Measured Internet Traffic delivered to the Receiving Party by the other Party shall be the same as the IP of the Receiving Party for Reciprocal Compensation Traffic under Section 7.1 of this Attachment.
 - 8.5.2 Except as otherwise set forth in the applicable Tariff of a Party ("Receiving Party") that receives Toll Traffic from the other Party, the IP of the Receiving Party for Toll Traffic delivered to the Receiving Party by the other Party shall be the same as the IP of the Receiving

Party for Reciprocal Compensation Traffic under Section 7.1 of this Attachment.

8.5.3 The IP for traffic exchanged between the Parties that is not Reciprocal Compensation Traffic, Measured Internet Traffic or Toll Traffic, shall be as specified in the applicable provisions of this Agreement or the applicable Tariff of the receiving Party, or in the absence of applicable provisions in this Agreement or a Tariff of the receiving Party, as mutually agreed by the Parties.

9. Transmission and Routing of Exchange Access Traffic

9.1 Scope of Traffic.

Section 9 prescribes parameters for certain trunks to be established over the Interconnections specified in Sections 2 through 5 of this Attachment for the transmission and routing of traffic between LightWave Telephone Exchange Service Customers and Interexchange Carriers ("Access Toll Connecting Trunks"), in any case where LightWave elects to have its End Office Switch subtend a Verizon Tandem. This includes casually-dialed (1010XXX and 101XXXX) traffic.

9.2 Access Toll Connecting Trunk Group Architecture.

9.2.1 If LightWave chooses to subtend a Verizon access Tandem, LightWave's NPA/NXX must be assigned by LightWave to subtend the same Verizon access Tandem that a Verizon NPA/NXX serving the same Rate Center Area subtends as identified in the LERG.

9.2.2 LightWave shall establish Access Toll Connecting Trunks pursuant to applicable access Tariffs by which it will provide Switched Exchange Access Services to Interexchange Carriers to enable such Interexchange Carriers to originate and terminate traffic to and from LightWave's Customers.

9.2.3 The Access Toll Connecting Trunks shall be two-way trunks. Such trunks shall connect the End Office LightWave utilizes to provide Telephone Exchange Service and Switched Exchange Access to its Customers in a given LATA to the Tandem Verizon utilizes to provide Exchange Access in such LATA.

9.2.4 Access Toll Connecting Trunks shall be used solely for the transmission and routing of Exchange Access to allow LightWave's Customers to connect to or be connected to the interexchange trunks of any Interexchange Carrier which is connected to a Verizon access Tandem.

10. Meet-Point Billing Arrangements

10.1 LightWave and Verizon will establish Meet-Point Billing (MPB) arrangements in order to provide a common transport option to Switched Exchange Access Services customers via a Verizon access Tandem Switch in accordance with the Meet Point Billing guidelines contained in the OBF's MECAB and MECOD documents, except as modified herein, and in Verizon's applicable Tariffs. The arrangements described in this Section 10 are intended to be used to provide Switched Exchange Access Service where the transport component of the

Switched Exchange Access Service is routed through an access Tandem Switch that is provided by Verizon.

- 10.2 In each LATA, the Parties shall establish MPB arrangements for the applicable LightWave Routing Point/Verizon Serving Wire Center combinations.
- 10.3 Interconnection for the MPB arrangement shall occur at the Verizon access Tandems in the LATA, unless otherwise agreed to by the Parties.
- 10.4 LightWave and Verizon will use reasonable efforts, individually and collectively, to maintain provisions in their respective state access Tariffs, and/or provisions within the National Exchange Carrier Association (NECA) Tariff No. 4, or any successor Tariff sufficient to reflect the MPB arrangements established pursuant to this Agreement.
- 10.5 In general, there are four alternative Meet-Point Billing arrangements possible, which are: Single Bill/Single Tariff, Multiple Bill/Single Tariff, Multiple Bill/Multiple Tariff, and Single Bill/Multiple Tariff, as outlined in the OBF MECAB Guidelines.

Each Party shall implement the "Multiple Bill/Single Tariff" or "Multiple Bill/Multiple Tariff" option, as appropriate, in order to bill an IXC for the portion of the MPB arrangement provided by that Party. Alternatively, in former Bell Atlantic service areas, upon agreement of the Parties, each Party may use the New York State Access Pool on its behalf to implement the Single Bill/Multiple Tariff or Single Bill/Single Tariff option, as appropriate, in order to bill an IXC for the portion of the MPB arrangement provided by that Party.

- 10.6 The rates to be billed by each Party for the portion of the MPB arrangement provided by it shall be as set forth in that Party's applicable Tariffs, or other document that contains the terms under which that Party's access services are offered. For each LightWave Routing Point/Verizon Serving Wire Center combination, the MPB billing percentages for transport between the LightWave Routing Point and the Verizon Serving Wire Center shall be calculated in accordance with the formula set forth in Section 10.17 of this Attachment.
- 10.7 Each Party shall provide the other Party with the billing name, billing address, and Carrier Identification Code (CIC) of the IXC, and identification of the Verizon Wire Center serving the IXC in order to comply with the MPB notification process as outlined in the MECAB document.
- 10.8 Verizon shall provide LightWave with the Switched Access Detail Usage Data (EMI category 1101XX records) on magnetic tape or via such other media as the Parties may agree to, no later than ten (10) Business Days after the date the usage occurred.
- 10.9 LightWave shall provide Verizon with the Switched Access Summary Usage Data (EMI category 1150XX records) on magnetic tape or via such other media as the Parties may agree, no later than ten (10) Business Days after the date of its rendering of the bill to the relevant IXC, which bill shall be rendered no less frequently than monthly.
- 10.10 All usage data to be provided pursuant to Sections 10.8 and 10.9 of this Attachment shall be sent to the following addresses:

To LightWave:

Mark J. Ricigliano

14504 Greenview Drive, Suite 302
Laurel, Maryland 20708

For Verizon (Former BA service area):

New York State Access Pool
C/O ACM, Inc.
120 Erie Blvd.
Schenectady, NY 12305
Attn: Mark Ferri

Either Party may change its address for receiving usage data by notifying the other Party in writing pursuant to Section 29 of the General Terms and Conditions.

- 10.11 LightWave and Verizon shall coordinate and exchange the billing account reference (BAR) and billing account cross reference (BACR) numbers or Operating Company Number ("OCN"), as appropriate, for the MPB arrangements described in this Section 10. Each Party shall notify the other if the level of billing or other BAR/BACR elements change, resulting in a new BAR/BACR number, or if the OCN changes.
- 10.12 Each Party agrees to provide the other Party with notification of any errors it discovers in MPB data within thirty (30) calendar days of the receipt of the original data. The other Party shall attempt to correct the error and resubmit the data within ten (10) Business Days of the notification. In the event the errors cannot be corrected within such ten- (10) Business-Day period, the erroneous data will be considered lost. In the event of a loss of data, whether due to uncorrectable errors or otherwise, both Parties shall cooperate to reconstruct the lost data and, if such reconstruction is not possible, shall accept a reasonable estimate of the lost data based upon prior usage data.
- 10.13 Either Party may request a review or audit of the various components of access recording up to a maximum of two (2) audits per calendar year. All costs associated with each review and audit shall be borne by the requesting Party. Such review or audit shall be conducted subject to Section 7 of the General Terms and Conditions and during regular business hours. A Party may conduct additional audits, at its expense, upon the other Party's consent, which consent shall not be unreasonably withheld.
- 10.14 Except as expressly set forth in this Agreement, nothing contained in this Section 10 shall create any liability for damages, losses, claims, costs, injuries, expenses or other liabilities whatsoever on the part of either Party.
- 10.15 MPB will apply for all traffic bearing the 500, 900, toll free service access code (e.g. 800/888/877) (to the extent provided by an IXC) or any other non-geographic NPA which may be designated for such traffic in the future.
- 10.16 In the event LightWave determines to offer Telephone Exchange Services in a LATA in which Verizon operates an access Tandem Switch, Verizon shall permit and enable LightWave to subtenant the Verizon access Tandem Switch(es) designated for the Verizon End Offices in the area where there are located LightWave Routing Point(s) associated with the NPA NXX(s) to/from which the Switched Exchange Access Services are homed.

- 10.17 Except as otherwise mutually agreed by the Parties, the MPB billing percentages for each Routing Point/Verizon Serving Wire Center combination shall be calculated according to the following formula, unless as mutually agreed to by the Parties:

$$a / (a + b) = \text{LightWave Billing Percentage}$$

and

$$b / (a + b) = \text{Verizon Billing Percentage}$$

where:

a = the airline mileage between LightWave Routing Point and the actual point of interconnection for the MPB arrangement; and

b = the airline mileage between the Verizon Serving Wire Center and the actual point of interconnection for the MPB arrangement.

- 10.18 LightWave shall inform Verizon of each LATA in which it intends to offer Telephone Exchange Services and its calculation of the billing percentages which should apply for such arrangement. Within ten (10) Business Days of LightWave's delivery of notice to Verizon, Verizon and LightWave shall confirm the Routing Point/Verizon Serving Wire Center combination and billing percentages.

11. Toll Free Service Access Code (e.g., 800/888/877) Traffic

The following terms shall apply when either Party delivers toll free service access code (e.g., 800/877/888)("8YY") calls to the other Party. For the purposes of this Section 11, the terms "translated" and "untranslated" refers to those toll free service access code calls that have been queried ("translated") or have not been queried ("untranslated") to an 8YY database. Except as otherwise agreed to by the Parties, all LightWave originating "untranslated" 8YY traffic will be routed over a separate one-way trunk group.

- 11.1 When LightWave delivers translated 8YY calls to Verizon for completion,

11.1.1 to an IXC, LightWave shall:

11.1.1.1 provide an appropriate EMI record to Verizon for processing and Meet Point Billing in accordance with Section 10 of this Attachment; and

11.1.1.2 bill the IXC the LightWave query charge associated with the call.

11.1.2 to Verizon or another LEC that is a toll free service access code service provider in the LATA, LightWave shall:

11.1.2.1 provide an appropriate EMI record to the toll free service access code service provider; and

11.1.2.2 bill to the toll free service access code service provider the LightWave's Tariffed Feature Group D ("FGD") Switched Exchange Access or Reciprocal Compensation rates, as applicable, and the LightWave query charge; and

- 11.1.2.3 Verizon shall bill applicable Tandem Transit Service charges and associated passthrough charges to LightWave.
- 11.2 When Verizon performs the query and delivers translated 8YY calls, originated by Verizon's or another LEC's Customer,
 - 11.2.1 to LightWave in it's capacity as a toll free service access code service provider, Verizon shall:
 - 11.2.1.1 bill LightWave the Verizon query charge associated with the call as specified in the Pricing Attachment; and
 - 11.2.1.2 provide an appropriate EMI record to LightWave; and
 - 11.2.1.3 bill LightWave Verizon's Tariffed FGD Switched Exchange Access or Reciprocal Compensation rates as applicable.
- 11.3 When LightWave: delivers untranslated 8YY calls to Verizon for completion,
 - 11.3.1 to an IXC, Verizon shall:
 - 11.3.1.1 query the call and route the call to the appropriate IXC; and
 - 11.3.1.2 provide an appropriate EMI record to LightWave to facilitate billing to the IXC; and
 - 11.3.1.3 bill the IXC the Verizon query charge associated with the call and any other applicable Verizon charges.
 - 11.3.2 to Verizon or another LEC that is a toll free service access code service provider in the LATA, Verizon shall:
 - 11.3.2.1 query the call and route the call to the appropriate LEC toll free service access code service provider; and
 - 11.3.2.2 provide an appropriate EMI record to LightWave; to facilitate billing to the LEC toll free service access code service provider; and
 - 11.3.2.3 bill the LEC toll free service access code service provider the query charge associated with the call and any other applicable Verizon charges.
- 11.4 Verizon will not direct untranslated toll free service access code call to LightWave.

12. Tandem Transit Traffic

- 12.1 As used in this Section 12, Tandem Transit Traffic is Telephone Exchange Service traffic that originates on LightWave's network, and is transported through a Verizon Tandem to the Central Office of a CLEC, ILEC other than Verizon, Commercial Mobile Radio Service (CMRS) carrier, or other LEC, that subtends the relevant Verizon Tandem to which LightWave delivers such traffic. Neither the originating nor terminating customer is a Customer of Verizon. Subtending Central Offices shall be determined in accordance with and as identified in the Local Exchange Routing Guide (LERG). Switched Exchange Access Service traffic is not Tandem Transit Traffic.

- 12.2 Tandem Transit Traffic Service provides LightWave with the transport of Tandem Transit Traffic as provided below.
- 12.3 Tandem Transit Traffic may be routed over the Interconnection Trunks described in Sections 2 through 6 of this Attachment. LightWave shall deliver each Tandem Transit Traffic call to Verizon with CCS and the appropriate Transactional Capabilities Application Part ("TCAP") message to facilitate full interoperability of CLASS Features and billing functions.
- 12.4 LightWave shall exercise its best efforts to enter into a reciprocal Telephone Exchange Service traffic arrangement (either via written agreement or mutual Tariffs) with any CLEC, ILEC, CMRS carrier, or other LEC, to which it delivers Telephone Exchange Service traffic that transits Verizon's Tandem Office. If LightWave does not enter into and provide notice to Verizon of the above referenced arrangement within 180 days of the initial traffic exchange with relevant third party carriers, then Verizon may, at its sole discretion, terminate Tandem Transit Service at anytime upon thirty (30) days written notice to LightWave.
- 12.5 LightWave shall pay Verizon for Transit Service that LightWave originates at the rate specified in the Pricing Attachment, plus any additional charges or costs the receiving CLEC, ILEC, CMRS carrier, or other LEC, imposes or levies on Verizon for the delivery or termination of such traffic, including any Switched Exchange Access Service charges.
- 12.6 Verizon will not provide Tandem Transit Traffic Service for Tandem Transit Traffic to be delivered to a CLEC, ILEC, CMRS carrier, or other LEC, if the volume of Tandem Transit Traffic to be delivered to that carrier exceeds one (1) DS1 level volume of calls.
- 12.7 If or when a third party carrier's Central Office subtends a LightWave Central Office, then LightWave shall offer to Verizon a service arrangement equivalent to or the same as Tandem Transit Service provided by Verizon to LightWave as defined in this Section 12 such that Verizon may terminate calls to a Central Office of a CLEC, ILEC, CMRS carrier, or other LEC, that subtends a LightWave Central Office ("Reciprocal Tandem Transit Service"). LightWave shall offer such Reciprocal Transit Service arrangements under terms and conditions no less favorable than those provided in this Section 12.
- 12.8 Neither Party shall take any actions to prevent the other Party from entering into a direct and reciprocal traffic exchange agreement with any carrier to which it originates, or from which it terminates, traffic.

13. Number Resources, Rate Center Areas and Routing Points

- 13.1 Nothing in this Agreement shall be construed to limit or otherwise adversely affect in any manner either Party's right to employ or to request and be assigned any Central Office Codes ("NXX") pursuant to the Central Office Code Assignment Guidelines and any relevant FCC or Commission orders, as may be amended from time to time, or to establish, by Tariff or otherwise, Rate Center Areas and Routing Points corresponding to such NXX codes.
- 13.2 It shall be the responsibility of each Party to program and update its own switches and network systems pursuant to information provided on ASRs as well as the LERG in order to recognize and route traffic to the other Party's assigned NXX codes. Except as expressly set forth in this Agreement, neither Party shall impose any fees or charges whatsoever on the other Party for such activities.

- 13.3 Unless otherwise required by Commission order, the Rate Center Areas will be the same for each Party. During the term of this Agreement, LightWave shall adopt the Rate Center Area and Rate Center Points that the Commission has approved for Verizon within the LATA and Tandem serving area. LightWave shall assign whole NPA-NXX codes to each Rate Center Area unless otherwise ordered by the FCC, the Commission or another governmental entity of appropriate jurisdiction, or the LEC industry adopts alternative methods of utilizing NXXs.
- 13.4 LightWave will also designate a Routing Point for each assigned NXX code. LightWave shall designate one location for each Rate Center Area in which the LightWave has established NXX code(s) as the Routing Point for the NPA-NXXs associated with that Rate Center Area, and such Routing Point shall be within the same LATA as the Rate Center Area but not necessarily within the Rate Center Area itself. Unless specified otherwise, calls to subsequent NXXs of LightWave will be routed in the same manner as calls to LightWave's initial NXXs.
- 13.5 Notwithstanding anything to the contrary contained herein, nothing in this Agreement is intended, and nothing in this Agreement shall be construed, to in any way constrain LightWave's choices regarding the size of the local calling area(s) that LightWave may establish for its Customers, which local calling areas may be larger than, smaller than, or identical to Verizon's local calling areas.

14. Joint Network Implementation and Grooming Process; and Installation, Maintenance, Testing and Repair

14.1 Joint Network Implementation and Grooming Process.

Upon request of either Party, the Parties shall jointly develop an implementation and grooming process (the "Joint Grooming Process" or "Joint Process") which may define and detail, inter alia:

- 14.1.1 standards to ensure that Interconnection Trunks experience a grade of service, availability and quality which is comparable to that achieved on interoffice trunks within Verizon's network and in accord with all appropriate relevant industry-accepted quality, reliability and availability standards. Except as otherwise stated in this Agreement, trunks provided by either Party for Interconnection services will be engineered using a design-blocking objective of B.01.
- 14.1.2 the respective duties and responsibilities of the Parties with respect to the administration and maintenance of the trunk groups, including, but not limited to, standards and procedures for notification and discoveries of trunk disconnects;
- 14.1.3 disaster recovery provision escalations;
- 14.1.4 additional technically feasible and geographically relevant IP(s) in a LATA as provided in Section 2 of this Attachment; and
- 14.1.5 such other matters as the Parties may agree, including, e.g., End Office to End Office high usage trunks as good engineering practices may dictate.

14.2 Installation, Maintenance, Testing and Repair.

Unless otherwise agreed in writing by the Parties, to the extent required by

Applicable Law, Interconnection provided by a Party shall be equal in quality to that provided by such Party to itself, any subsidiary, affiliates or third party. If either Party is unable to fulfill its obligations under this Section 14.2, it shall notify the other Party of its inability to do so and will negotiate alternative intervals in good faith. The Parties agree that to the extent required by Applicable Law, the standards to be used by a Party for isolating and clearing any disconnections and/or other outages or troubles shall be at parity with standards used by such Party with respect to itself, any subsidiary, affiliate or third party.

14.3 Forecasting Requirements for Trunk Provisioning.

Within ninety (90) days of executing this Agreement, LightWave shall provide Verizon a two (2) year traffic forecast. This initial forecast will provide the amount of traffic to be delivered to and from Verizon over each of the Interconnection Trunk groups over the next eight (8) quarters. The forecast shall be updated and provided to Verizon on an as-needed basis but no less frequently than semiannually. All forecasts shall comply with the Verizon CLEC Interconnection Trunking Forecast Guide and shall include, at a minimum, Access Carrier Terminal Location (ACTL), traffic type (Reciprocal Compensation Traffic/Toll Traffic, Operator Services, 911, etc.), code (identifies trunk group), A location/Z location (CLLI codes for LightWave-IPs and Verizon-IPs), interface type (e.g., DS1), and trunks in service each year (cumulative).

14.3.1 Initial Forecasts/Trunking Requirements. Because Verizon's trunking requirements will, at least during an initial period, be dependent on the Customer segments and service segments within Customer segments to whom LightWave decides to market its services, Verizon will be largely dependent on LightWave to provide accurate trunk forecasts for both inbound (from Verizon) and outbound (to Verizon) traffic. Verizon will, as an initial matter, provide the same number of trunks to terminate Reciprocal Compensation Traffic to LightWave as LightWave provides to terminate Reciprocal Compensation Traffic to Verizon. At Verizon's discretion, when LightWave expressly identifies particular situations that are expected to produce traffic that is substantially skewed in either the inbound or outbound direction, Verizon will provide the number of trunks LightWave suggests; provided, however, that in all cases Verizon's provision of the forecasted number of trunks to LightWave is conditioned on the following: that such forecast is based on reasonable engineering criteria, there are no capacity constraints, and LightWave's previous forecasts have proven to be reliable and accurate.

14.3.1.1 Monitoring and Adjusting Forecasts. Verizon will, for ninety (90) days, monitor traffic on each trunk group that it establishes at LightWave's suggestion or request pursuant to the procedures identified in Section 14.3 of this Attachment. At the end of such ninety-(90) day period, Verizon may disconnect trunks that, based on reasonable engineering criteria and capacity constraints, are not warranted by the actual traffic volume experienced. If, after such initial ninety (90) day period for a trunk group, Verizon determines that any trunks in the trunk group in excess of two (2) DS-1s are not warranted by actual traffic volumes (considering engineering criteria for busy Centium Call Second (Hundred Call Second) and blocking percentages),

then Verizon may hold LightWave financially responsible for the excess facilities.

- 14.3.1.2 In subsequent periods, Verizon may also monitor traffic for ninety (90) days on additional trunk groups that LightWave suggests or requests Verizon to establish. If, after any such (90) day period, Verizon determines that any trunks in the trunk group are not warranted by actual traffic volumes (considering engineering criteria for busy hour Centium Call Second (Hundred Call Second) and blocking percentages), then Verizon may hold LightWave financially responsible for the excess facilities. At any time during the relevant ninety-(90) day period, LightWave may request that Verizon disconnect trunks to meet a revised forecast. In such instances, Verizon may hold LightWave financially responsible for the disconnected trunks retroactive to the start of the ninety (90) day period through the date such trunks are disconnected.

15. Number Portability - Section 251(B)(2)

15.1 Scope.

The Parties shall provide Number Portability (NP) in accordance with rules and regulations as from time to time prescribed by the FCC.

15.2 Procedures for Providing LNP ("Long-term Number Portability").

The Parties will follow the LNP provisioning process recommended by the North American Numbering Council (NANC) and adopted by the FCC. In addition, the Parties agree to follow the LNP ordering procedures established at the OBF. The Parties shall provide LNP on a reciprocal basis.

- 15.2.1 A Customer of one Party ("Party A") elects to become a Customer of the other Party ("Party B"). The Customer elects to utilize the original telephone number(s) corresponding to the Telephone Exchange Service(s) it previously received from Party A, in conjunction with the Telephone Exchange Service(s) it will now receive from Party B. After Party B has received authorization from the Customer in accordance with Applicable Law and sends an LSR to Party A, Parties A and B will work together to port the Customer's telephone number(s) from Party A's network to Party B's network.

- 15.2.2 When a telephone number is ported out of Party A's network, Party A will remove any non-proprietary line based calling card(s) associated with the ported number(s) from its Line Information Database (LIDB). Reactivation of the line-based calling card in another LIDB, if desired, is the responsibility of Party B or Party B's Customer.

- 15.2.3 When a Customer of Party A ports their telephone numbers to Party B and the Customer has previously secured a reservation of line numbers from Party A for possible activation at a future point, these reserved but inactive numbers may be ported along with the active numbers to be ported provided the numbers have been reserved for the Customer. Party B may request that Party A port all reserved numbers assigned to the Customer or that Party A port only those numbers listed by Party B. As long as Party B maintains reserved but

inactive numbers ported for the Customer, Party A shall not reassign those numbers. Party B shall not reassign the reserved numbers to another Customer.

15.2.4 When a Customer of Party A ports their telephone numbers to Party B, in the process of porting the Customer's telephone numbers, Party A shall implement the ten-digit trigger feature where it is available. When Party A receives the porting request, the unconditional trigger shall be applied to the Customer's line before the due date of the porting activity. When the ten-digit unconditional trigger is not available, Party A and Party B must coordinate the disconnect activity.

15.2.5 The Parties shall furnish each other with the Jurisdiction Information Parameter (JIP) in the Initial Address Message (IAM), containing a Local Exchange Routing Guide (LERG)-assigned NPA-NXX (6 digits) identifying the originating switch on calls originating from LNP capable switches.

15.2.6 Where LNP is commercially available, the NXXs in the office shall be defined as portable, except as noted in 15.2.7, and translations will be changed in the Parties' switches to open those NXXs for database queries in all applicable LNP capable offices within the LATA of the given switch(es). On a prospective basis, all newly deployed switches will be equipped with LNP capability and so noted in the LERG.

15.2.7 All NXXs assigned to LNP capable switches are to be designated as portable unless a NXX(s) has otherwise been designated as non-portable. Non-portable NXXs include NXX codes assigned to paging, cellular and wireless services; codes assigned for internal testing and official use and any other NXX codes required to be designated as non-portable by the rules and regulations of the FCC. NXX codes assigned to mass calling on a choked network may not be ported using LNP technology but are portable using methods established by the NANC and adopted by the FCC. On a prospective basis, newly assigned codes in switches capable of porting shall become commercially available for porting with the effective date in the network.

15.2.8 Both Parties' use of LNP shall meet the performance criteria specified by the FCC. Both Parties will act as the default carrier for the other Party in the event that either Party is unable to perform the routing necessary for LNP.

15.3 Procedures for Providing NP Through Full NXX Code Migration.

Where a Party has activated an entire NXX for a single Customer, or activated at least eighty percent (80%) of an NXX for a single Customer, with the remaining numbers in that NXX either reserved for future use by that Customer or otherwise unused, if such Customer chooses to receive Telephone Exchange Service from the other Party, the first Party shall cooperate with the second Party to have the entire NXX reassigned in the LERG (and associated industry databases, routing tables, etc.) to an End Office operated by the second Party. Such transfer will be accomplished with appropriate coordination between the Parties and subject to appropriate industry lead times for movements of NXXs from one switch to another. Neither Party shall charge the other in connection with this coordinated transfer.

15.4 Procedures for Providing INP (Interim Number Portability).

The Parties shall provide Interim Number Portability (INP) in accordance with rules and regulations prescribed from time to time by the FCC and state regulatory bodies, the Parties respective company procedures, and as set forth in this Section 15.4. The Parties shall provide INP on a reciprocal basis.

15.4.1 In the event that either Party, Party B, wishes to serve a Customer currently served at an End Office of the other Party, Party A, and that End Office is not LNP-capable, Party A shall make INP available only where LNP is not commercially available or not required by FCC orders and regulations. INP will be provided by remote call forwarding (RCF) and/or direct inward dialing (DID) technology, which will forward terminating calls to Party B's End Office. Party B shall provide Party A with an appropriate "forward-to" number.

15.4.2 Prices for INP and formulas for sharing Terminating access revenues associated with INP shall be provided where applicable, upon request by either Party.

15.4.3 Either Party wishing to use DID to provide for INP must request a dedicated trunk group from the End Office where the DID numbers are currently served to the new serving-End Office. If there are no existing facilities between the respective End Offices, the dedicated facilities and transport trunks will be provisioned as unbundled service through the ASR provisioning process. The requesting party will reroute the DID numbers to the pre-positioned trunk group using the LSR provisioning process. DID trunk rates are contained in the Parties' respective tariffs.

15.4.4 The Parties Agree that, per FCC 98-275, Paragraph 16, effective upon the date LNP is available at any End Office of one Party, Party A, providing INP for Customers of the other Party, Party B, no further orders will be accepted for new INP at that End Office. Orders for new INP received prior to that date, and change orders for existing INP, shall be worked by Party A. Orders for new INP received by Party A on or after that date shall be rejected. Existing INP will be grandfathered, subject to Section 15.4.5 of this Attachment.

15.4.5 In offices equipped with LNP prior to September 1, 1999 for former Bell Atlantic offices and October 1, 2000 for former GTE offices, the Parties agree to work together to convert all existing INP-served Customers to LNP by December 31, 2000 in accordance with a mutually agreed to conversion process and schedule. If mutually agreed to by the Parties, the conversion period may be extended one time by no more than 90 days from December 31, 2000.

15.4.6 Upon availability of LNP after October 1, 2000 at an End Office of either Party, both Parties agree to work together to convert the existing INP-served Customers to LNP by no later than 90 days from the date of LNP availability unless otherwise agreed to by the Parties.

15.4.7 When, through no fault of Verizon's, all INP has not been converted to LNP at the end of the agreed to conversion period, then the remaining INPs will be changed to a functionally equivalent tariff service and billed to LightWave at the tariff rate(s) for the subject jurisdiction.

15.5 Procedures for LNP Request.

The Parties shall provide for the requesting of End Office LNP capability on a reciprocal basis through a written request. The Parties acknowledge that Verizon has deployed LNP throughout its network in compliance with FCC 96-286 and other applicable FCC Regulations.

15.5.1 If Party B desires to have LNP capability deployed in an End Office of Party A, which is not currently capable, Party B shall issue a LNP request to Party A. Party A will respond to the Party B, within ten (10) days of receipt of the request, with a date for which LNP will be available in the requested End Office. Party A shall proceed to provide for LNP in compliance with the procedures and timelines set forth in FCC 96-286, Paragraph 80, and FCC 97-74, Paragraphs 65 through 67.

15.5.2 The Parties acknowledge that each can determine the LNP-capable End Offices of the other through the Local Exchange Routing Guide (LERG). In addition the Parties shall make information available upon request showing their respective LNP-capable End Offices, as set forth in this Section 15.5.

RESALE ATTACHMENT

1. General

Verizon shall provide to LightWave, in accordance with this Agreement (including, but not limited to, Verizon's applicable Tariffs) and the requirements of Applicable Law, Verizon's Telecommunications Services for resale by LightWave; provided, that notwithstanding any other provision of this Agreement, Verizon shall be obligated to provide Telecommunications Services to LightWave only to the extent required by Applicable Law and may decline to provide a Telecommunications Service to LightWave to the extent that provision of such Telecommunications Service is not required by Applicable Law.

2. Use of Verizon Telecommunications Services

- 2.1 Verizon Telecommunications Services may be purchased by LightWave under this Resale Attachment only for the purpose of resale by LightWave as a Telecommunications Carrier. Verizon Telecommunications Services to be purchased by LightWave for other purposes (including, but not limited to, LightWave's own use) must be purchased by LightWave pursuant to other applicable Attachments to this Agreement (if any), or separate written agreements, including, but not limited to, applicable Verizon Tariffs.
- 2.2 LightWave shall not resell:
 - 2.2.1 Residential service to persons not eligible to subscribe to such service from Verizon (including, but not limited to, business or other nonresidential Customers);
 - 2.2.2 Lifeline, Link Up America, or other means-tested service offerings, to persons not eligible to subscribe to such service offerings from Verizon;
 - 2.2.3 Grandfathered or discontinued service offerings to persons not eligible to subscribe to such service offerings from Verizon; or
 - 2.2.4 Any other Verizon service in violation of a restriction stated in this Agreement (including, but not limited to, a Verizon Tariff) that is not prohibited by Applicable Law.
 - 2.2.5 In addition to any other actions taken by LightWave to comply with this Section 2.2, LightWave shall take those actions required by Applicable Law to determine the eligibility of LightWave Customers to purchase a service, including, but not limited to, obtaining any proof or certification of eligibility to purchase Lifeline, Link Up America, or other means-tested services, required by Applicable Law. LightWave shall indemnify Verizon from any Claims resulting from LightWave's failure to take such actions required by Applicable Law.
 - 2.2.6 Verizon may perform audits to confirm LightWave's conformity to the provisions of this Section 2.2. Such audits may be performed twice per calendar year and shall be performed in accordance with Section 7 of the General Terms and Conditions.

- 2.3 LightWave shall be subject to the same limitations that Verizon's Customers are subject to with respect to any Telecommunications Service that Verizon grandfathers or discontinues offering. Without limiting the foregoing, except to the extent that Verizon follows a different practice for Verizon Customers in regard to a grandfathered Telecommunications Service, such grandfathered Telecommunications Service: (a) shall be available only to a Customer that already has such Telecommunications Service; (b) may not be moved to a new service location; and (c) will be furnished only to the extent that facilities continue to be available to provide such Telecommunications Service.
- 2.4 LightWave shall not be eligible to participate in any Verizon plan or program under which Verizon Customers may obtain products or services, which are not Verizon Telecommunications Services, in return for trying, agreeing to purchase, purchasing, or using Verizon Telecommunications Services.
- 2.5 In accordance with 47 CFR § 51.617(b), Verizon shall be entitled to all charges for Verizon Exchange Access services used by interexchange carriers to provide service to LightWave Customers.

3. Availability of Verizon Telecommunications Services

- 3.1 Verizon will provide a Verizon Telecommunications Service to LightWave for resale pursuant to this Attachment where and to the same extent, but only where and to the same extent that such Verizon Telecommunications Service is provided to Verizon's Customers.
- 3.2 Except as otherwise required by Applicable Law, subject to Section 3.1 of this Attachment, Verizon shall have the right to add, modify, grandfather, discontinue or withdraw Verizon Telecommunications Services at any time, without the consent of LightWave.
- 3.3 To the extent required by Applicable Law, the Verizon Telecommunications Services to be provided to LightWave for resale pursuant to this Attachment will include a Verizon Telecommunications Service customer-specific contract service arrangement ("CSA") (such as a customer specific pricing arrangement or individual case based pricing arrangement) that Verizon is providing to a Verizon Customer at the time the CSA is requested by LightWave.

4. Responsibility for Charges

LightWave shall be responsible for and pay all charges for any Verizon Telecommunications Services provided by Verizon pursuant to this Resale Attachment.

5. Operations Matters

5.1 Facilities.

- 5.1.1 Verizon and its suppliers shall retain all of their right, title and interest in all facilities, equipment, software, information, and wiring used to provide Verizon Telecommunications Services.
- 5.1.2 Verizon shall have access at all reasonable times to LightWave Customer locations for the purpose of installing, inspecting, maintaining, repairing, and removing, facilities, equipment, software, and wiring used to provide the Verizon Telecommunications Services. LightWave shall, at LightWave's expense, obtain any rights and authorizations necessary for such access.

- 5.1.3 Except as otherwise agreed to in writing by Verizon, Verizon shall not be responsible for the installation, inspection, repair, maintenance, or removal of facilities, equipment, software, or wiring provided by LightWave or LightWave Customers for use with Verizon Telecommunications Services.

5.2 Branding.

- 5.2.1 Except as stated in Section 5.2.2 of this Attachment, in providing Verizon Telecommunications Services to LightWave, Verizon shall have the right (but not the obligation) to identify the Verizon Telecommunications Services with Verizon's trade names, trademarks and service marks ("Verizon Marks"), to the same extent that these Services are identified with Verizon's Marks when they are provided to Verizon's Customers. Any such identification of Verizon's Telecommunications Services shall not constitute the grant of a license or other right to LightWave to use Verizon's Marks.
- 5.2.2 To the extent required by Applicable Law, upon request by LightWave and at prices, terms and conditions to be negotiated by LightWave and Verizon, Verizon shall provide Verizon Telecommunications Services for resale that are identified by LightWave's trade name, or that are not identified by trade name, trademark or service mark.
- 5.2.3 If Verizon uses a third-party contractor to provide Verizon Operator Services or Verizon Directory Assistance Services, LightWave will be responsible for entering into a direct contractual arrangement with the third-party contractor at LightWave's expense (a) to obtain identification of Verizon Operator Services or Verizon Directory Assistance Services purchased by LightWave for resale with LightWave's trade name, or (b) to obtain removal of Verizon Marks from Verizon Operator Services or Verizon Directory Assistance Services purchased by LightWave for resale.

6. Rates and Charges

The rates and charges for Verizon Telecommunication Services purchased by LightWave for resale pursuant to this Attachment shall be as provided in this Attachment and the Pricing Attachment.

NETWORK ELEMENTS ATTACHMENT

1. General

- 1.1 Verizon shall provide to LightWave, in accordance with this Agreement (including, but not limited to, Verizon's applicable Tariffs) and the requirements of Applicable Law, access to Verizon's Network Elements on an unbundled basis and in combinations (Combinations); provided, however, that notwithstanding any other provision of this Agreement, Verizon shall be obligated to provide unbundled Network Elements (UNEs) and Combinations to LightWave only to the extent required by Applicable Law and may decline to provide UNEs or Combinations to LightWave to the extent that provision of such UNEs or Combinations is not required by Applicable Law.
- 1.2 Verizon shall be obligated to combine UNEs that are not already combined in Verizon's network only to the extent required by Applicable Law. Except as otherwise required by Applicable Law: (a) Verizon shall be obligated to provide a UNE or Combination pursuant to this Agreement only to the extent such UNE or Combination, and the equipment and facilities necessary to provide such UNE or Combination, are available in Verizon's network; and (b) Verizon shall have no obligation to construct or deploy new facilities or equipment to offer any UNE or Combination. Consistent with the foregoing, should LightWave engage in a pattern of behavior that suggests that LightWave either (i) knowingly induces Verizon Customers to order Telecommunications Services from Verizon with the primary intention of enabling LightWave to convert those Telecommunications Services to UNEs or Combinations, or (ii) itself orders Telecommunications Services from Verizon without taking delivery of those Telecommunications Services in order to induce Verizon to construct facilities that LightWave then converts to UNEs or Combinations, then Verizon will provide written notice to LightWave that its actions suggest that LightWave is engaged in a pattern of bad faith conduct. If LightWave fails to respond to this notice in a manner that is satisfactory to Verizon within fifteen (15) Business Days, then Verizon shall have the right, with thirty (30) calendar days advance written notice to LightWave, to institute an embargo on provision of new services and facilities to LightWave. This embargo shall remain in effect until LightWave provides Verizon with adequate assurances that the bad faith conduct shall cease. Should LightWave repeat the pattern of conduct following the removal of the service embargo, then Verizon may elect to treat the conduct as an act of material breach in accordance with the provisions of this Agreement that address default.
- 1.3 LightWave may use a UNE or Combination only for those purposes for which Verizon is required by Applicable Law to provide such UNE or Combination to LightWave. Without limiting the foregoing, LightWave may use a UNE or Combination (a) only to provide a Telecommunications Service and (b) to provide Exchange Access services only to the extent that Verizon is required by Applicable Law to provide such UNE or Combination to LightWave in order to allow LightWave to provide such Exchange Access services.
- 1.4 Notwithstanding any other provision of this Agreement:
 - 1.4.1 To the extent Verizon is required by a change in Applicable Law to provide to LightWave a UNE or Combination that is not offered under this Agreement to LightWave as of the Effective Date, the terms, conditions and prices for such UNE or Combination (including, but not limited to, the terms and conditions defining the UNE or Combination

and stating when and where the UNE or Combination will be available and how it will be used, and terms, conditions and prices for pre-ordering, ordering, provisioning, repair, maintenance and billing) shall be as provided in an applicable Verizon Tariff, or, in the absence of an applicable Verizon Tariff, as mutually agreed in writing by the Parties.

1.4.2 Verizon shall not be obligated to provide to LightWave, and LightWave shall not request from Verizon, access to a proprietary advanced intelligent network service.

1.5 Without limiting Verizon's rights pursuant to Applicable Law or any other section of this Agreement to terminate its provision of a UNE or a Combination, if Verizon provides a UNE or Combination to LightWave, and the Commission, the FCC, a court or other governmental body of appropriate jurisdiction determines or has determined that Verizon is not required by Applicable Law to provide such UNE or Combination, Verizon may terminate its provision of such UNE or Combination to LightWave. If Verizon terminates its provision of a UNE or a Combination to LightWave pursuant to this Section 1.5 and LightWave elects to purchase other services offered by Verizon in place of such UNE or Combination, then: (a) Verizon shall reasonably cooperate with LightWave to coordinate the termination of such UNE or Combination and the installation of such services to minimize the interruption of service to Customers of LightWave; and, (b) LightWave shall pay all applicable charges for such services, including, but not limited to, all applicable installation charges.

1.6 Nothing contained in this Agreement shall be deemed to constitute an agreement by Verizon that any item identified in this Agreement as a Network Element is (i) a Network Element under Applicable Law, or (ii) a Network Element Verizon is required by Applicable Law to provide to LightWave on an unbundled basis or in combination with other Network Elements.

1.7 Except as otherwise expressly stated in this Agreement, LightWave shall access Verizon's UNEs specifically identified in this Agreement via Collocation in accordance with the Collocation Attachment at the Verizon premises where those UNEs exist, and each Loop or Port shall, in the case of Collocation, be delivered to LightWave's Collocation node by means of a Cross Connection.

1.8 If as the result of LightWave Customer actions (i.e., Customer Not Ready ("CNR")), Verizon cannot complete requested work activity when a technician has been dispatched to the LightWave Customer premises, LightWave will be assessed a non-recurring charge associated with this visit. This charge will be the sum of the applicable Service Order charge as provided in the Pricing Attachment and the Premises Visit Charge as provided in Verizon's applicable retail or wholesale Tariff.

2. Verizon's Provision of Network Elements

Subject to the conditions set forth in Section 1 of this Attachment, in accordance with, but only to the extent required by, Applicable Law, Verizon shall provide LightWave access to the following:

2.1 Loops, as set forth in Section 3 of this Attachment;

2.2 Line Sharing, as set forth in Section 4 of this Attachment;

2.3 Line Splitting, as set forth in Section 5 of this Attachment;

- 2.4 Sub-Loops, as set forth in Section 6 of this Attachment;
- 2.5 Inside Wire, as set forth in Section 7 of this Attachment;
- 2.6 Dark Fiber, as set forth in Section 8 of this Attachment;
- 2.7 Network Interface Device, as set forth in Section 9 of this Attachment;
- 2.8 Switching Elements, as set forth in Section 10 of this Attachment;
- 2.9 Interoffice Transmission Facilities (IOF), as set forth in Section 11 of this Attachment;
- 2.10 Signaling Networks and Call-Related Databases, as set forth in Section 12 of this Attachment;
- 2.11 Operations Support Systems, as set forth in Section 13 of this Attachment; and
- 2.12 Other UNEs in accordance with Section 14 of this Attachment.

3. Loop Transmission Types

- 3.1 Subject to the conditions set forth in Section 1 of this Attachment, Verizon shall allow LightWave to access Loops unbundled from local switching and local transport, at the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time. Verizon shall allow LightWave access to Loops in accordance with, but only to extent required by, Applicable Law.

4. Line Sharing

Subject to the conditions set forth in Section 1 of this Attachment and upon request by LightWave, Verizon shall provide LightWave line sharing in accordance with, and subject to, the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time, that relate to or concern line sharing, and Verizon shall do so regardless of whether or not such rates, terms and conditions are effective ("Line Sharing"). Verizon shall provide LightWave with access to Line Sharing in accordance with, but only to the extent required by, Applicable Law.

5. Line Splitting

Subject to the conditions set forth in Section 1 of this Attachment, Verizon shall provide LightWave with access to line splitting in accordance with, and subject to, the rates, terms and conditions set forth in Verizon's DTE MA No.17 Tariff, as amended from time to time, that relate to or concern line splitting, and Verizon shall do so regardless of whether or not such rates, terms and conditions are effective ("Line Splitting"). Verizon shall provide LightWave with access to Line Splitting in accordance with, but only to the extent required by, Applicable Law.

6. Sub-Loop

- 6.1 Unbundled Sub-Loop Arrangement– Distribution (USLA).

Subject to the conditions set forth in Section 1 of this Attachment and upon request by LightWave, Verizon shall provide LightWave with access to a Sub-Loop Distribution Facility in accordance with, and subject to, the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time, that relate to or concern Sub-Loop Distribution Facilities, and Verizon shall do so regardless of whether or not such rates, terms and conditions are effective.

Verizon shall provide LightWave with access to a Sub-Loop Distribution Facility in accordance with, but only to the extent required by, Applicable Law.

6.2 Unbundled Feeder Sub-Loop – Element (UFSE).

6.2.1 Subject to the conditions set forth in Section 1 of this Attachment and upon request by LightWave, Verizon shall provide LightWave with access to a Sub-Loop Feeder Facility in accordance with, and subject to, the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time, that relate to or concern Sub-Loop Feeder Facilities, and Verizon shall do so regardless of whether or not such rates, terms and conditions are effective. Verizon shall provide LightWave with access to a Sub-Loop Feeder Facility in accordance with, but only to the extent required by, Applicable Law.

6.3 Collocation in Remote Terminals.

To the extent required by Applicable Law, Verizon shall allow LightWave to collocate equipment in a Verizon remote terminal equipment enclosure in accordance with, and subject to, the rates, terms and conditions set forth in the Collocation Attachment and the Pricing Attachment.

7. **Inside Wire**

7.1 House and Riser.

Subject to the conditions set forth in Section 1 of this Attachment and upon request by LightWave, Verizon shall provide LightWave with access to a House and Riser Cable in accordance with, and subject to, the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time, that relate to or concern House and Riser Cables, and Verizon shall do so regardless of whether or not such rates, terms and conditions are effective. Verizon shall provide LightWave with access to House and Riser Cable in accordance with, but only to the extent required by, Applicable Law.

8. **Dark Fiber**

8.1 Subject to the conditions set forth in Section 1 of this Attachment and upon request by LightWave, Verizon shall provide LightWave with access to dark fiber in accordance with, and subject to, the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time, that relate to or concern Dark Fiber, and Verizon shall do so regardless of whether or not such rates, terms and conditions are effective. Verizon will provide LightWave access to Dark Fiber Loops, Dark Fiber Sub-Loops and Dark Fiber IOF in accordance with, but only to the extent required by, Applicable Law.

9. **Network Interface Device**

9.1 Subject to the conditions set forth in Section 1 of this Attachment, and upon request by LightWave, Verizon shall permit LightWave to connect a carrier's Loop to the Inside Wiring of a Customer's premises through Verizon's NID at the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time. Verizon shall provide LightWave with access to NIDs in accordance with, but only to the extent required by, Applicable Law.

10. **Unbundled Switching Elements**

- 10.1 Subject to the conditions set forth in Section 1 of this Attachment and upon request by LightWave, Verizon shall make available to LightWave the local switching element and Tandem switching element unbundled from shared interoffice transport and local Loop transmission, or other services, in accordance with Applicable Law, at the rates, terms and conditions set forth in Verizon's DTE MA No. 17, as amended from time to time. Verizon shall provide LightWave with access to the local Switching Element and the Tandem Switching Element in accordance with, but only to the extent required by, Applicable Law.

11. Unbundled Interoffice Facilities

Subject to the conditions set forth in Section 1 of this Attachment, and upon request by LightWave, Verizon shall make available to LightWave where facilities are available, interoffice facilities (IOF) unbundled from other Network Elements at the rates, terms and conditions set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time. Verizon shall provide LightWave with access to the unbundled IOF in accordance with, but only to the extent required by, Applicable Law.

12. Signaling Networks and Call-Related Databases

- 12.1 Subject to the conditions set forth in Section 1 of this Attachment and upon request by LightWave, Verizon shall provide LightWave with access to databases and associated signaling necessary for call routing and completion by providing SS7 Common Channel Signaling ("CCS") Interconnection, and Interconnection and access to toll free service access code (e.g., 800/888/877) databases, LIDB, and any other necessary databases, in accordance with this Section 12 and the rates and charges provided in the Pricing Attachment. Such access shall be provided by Verizon in accordance with, but only to the extent required by, Applicable Law.
- 12.2 LightWave shall provide Verizon with CCS Interconnection required for call routing and completion, and the billing of calls which involve LightWave's Customers, at non-discriminatory rates (subject to the provisions of the Pricing Attachment), terms and conditions, provided further that if the LightWave information Verizon requires to provide such call-related functionality is resident in a database, LightWave will provide Verizon with the access and authorization to query LightWave's information in the databases within which it is stored.
- 12.3 Alternatively, either Party ("Purchasing Party") may secure CCS Interconnection from a commercial SS7 hub provider (third party signaling provider) to transport signaling messages to and from the Verizon CCS network, and in that case the other Party will permit the Purchasing Party to access the same databases as would have been accessible if the Purchasing Party had connected directly to the other Party's CCS network. If a third party signaling provider is selected by LightWave to transport signaling messages, that third party provider must present a letter of agency to Verizon, prior to the testing of the interconnection, authorizing the third party to act on behalf of LightWave.
- 12.4 Regardless of the manner in which LightWave obtains CCS Interconnection, LightWave shall comply with Verizon's SS7 certification process prior to establishing CCS Interconnection with Verizon.
- 12.5 The Parties will provide CCS Signaling to each other, where and as available, in conjunction with all Reciprocal Compensation Traffic, Toll Traffic, Meet Point Billing Traffic, and Transit Traffic. The Parties will cooperate on the exchange of TCAP messages to facilitate interoperability of CCS-based features between their respective networks, including all CLASS Features and functions, to the

extent each Party offers such features and functions to its Customers. All CCS Signaling parameters will be provided upon request (where available), including called party number, Calling Party Number, originating line information, calling party category, and charge number. All privacy indicators will be honored as required under applicable law.

- 12.6 The Parties will follow all OBF-adopted standards pertaining to CIC/OZZ codes.
- 12.7 Where CCS Signaling is not available, in-band multi-frequency ("MF") wink start signaling will be provided. Any such MF arrangement will require a separate local trunk circuit between the Parties' respective switches in those instances where the Parties have established End Office to End Office high usage trunk groups. In such an arrangement, each Party will out pulse the full ten-digit telephone number of the called Party to the other Party.
- 12.8 The Parties acknowledge that there is a network security risk associated with interconnection with the public Internet Protocol network, including, but not limited to, the risk that interconnection of LightWave signaling systems to the public Internet Protocol network may expose LightWave and Verizon signaling systems and information to interference by third parties. LightWave shall notify Verizon in writing sixty (60) days in advance of installation of any network arrangement that may expose signaling systems or information to access through the public Internet Protocol network. LightWave shall take commercially reasonable efforts to protect its signaling systems and Verizon's signaling systems from interference by unauthorized persons.
- 12.9 Each Party shall provide trunk groups, where available and upon reasonable request, that are configured utilizing the B8ZS ESF protocol for 64 kbps clear channel transmission to allow for ISDN interoperability between the Parties' respective networks.
- 12.10 The following publications describe the practices, procedures and specifications generally utilized by Verizon for signaling purposes and are listed herein to assist the Parties in meeting their respective Interconnection responsibilities related to Signaling:
 - 12.10.1 Telcordia Generic Requirements, GR-905-CORE, Issue 1, March, 1995, and subsequent issues and amendments; and
 - 12.10.2 Where applicable, Verizon Supplement Common Channel Signaling Network Interface Specification (Verizon-905).
- 12.11 Each Party shall charge the other Party mutual and reciprocal rates for any usage-based charges for CCS Signaling, toll free service access code (e.g., 800/888/877) database access, LIDB access, and access to other necessary databases, as follows: Verizon shall charge LightWave in accordance with the Pricing Attachment and the terms and conditions in applicable Tariffs. LightWave shall charge Verizon rates equal to the rates Verizon charges LightWave, unless LightWave's Tariffs for CCS signaling provide for lower generally available rates, in which case LightWave shall charge Verizon such lower rates. Notwithstanding the foregoing, to the extent a Party uses a third party vendor for the provision of CCS Signaling, such charges shall apply only to the third party vendor.

13. Operations Support Systems

Subject to the conditions set forth in Section 1 of this Attachment and in Section 8 of the Additional Services Attachment, Verizon shall provide LightWave with access via

electronic interfaces to databases required for pre-ordering, ordering, provisioning, maintenance and repair, and billing. Verizon shall provide LightWave with such access in accordance with, but only to the extent required by, Applicable Law. All such transactions shall be submitted by LightWave through such electronic interfaces.

14. Availability of Other Network Elements on an Unbundled Basis

14.1 Any request by LightWave for access to a Verizon Network Element that is not already available and that Verizon is required by Applicable Law to provide on an unbundled basis shall be treated as a Network Element Bona Fide Request pursuant to Section 14.3, of this Attachment. LightWave shall provide Verizon access to its Network Elements as mutually agreed by the Parties or as required by Applicable Law.

14.2 Notwithstanding anything to the contrary in this Section 14, a Party shall not be required to provide a proprietary Network Element to the other Party under this Section 14 except as required by Applicable Law.

14.3 Network Element Bona Fide Request (BFR).

14.3.1 Each Party shall promptly consider and analyze access to a new unbundled Network Element in response to the submission of a Network Element Bona Fide Request by the other Party hereunder. The Network Element Bona Fide Request process set forth herein does not apply to those services requested pursuant to Report & Order and Notice of Proposed Rulemaking 91-141 (rel. Oct. 19, 1992) ¶ 259 and n.603 or subsequent orders.

14.3.2 A Network Element Bona Fide Request shall be submitted in writing and shall include a technical description of each requested Network Element.

14.3.3 The requesting Party may cancel a Network Element Bona Fide Request at any time, but shall pay the other Party's reasonable and demonstrable costs of processing and/or implementing the Network Element Bona Fide Request up to the date of cancellation.

14.3.4 Within ten (10) Business Days of its receipt, the receiving Party shall acknowledge receipt of the Network Element Bona Fide Request.

14.3.5 Except under extraordinary circumstances, within thirty (30) days of its receipt of a Network Element Bona Fide Request, the receiving Party shall provide to the requesting Party a preliminary analysis of such Network Element Bona Fide Request. The preliminary analysis shall confirm that the receiving Party will offer access to the Network Element or will provide a detailed explanation that access to the Network Element is not technically feasible and/or that the request does not qualify as a Network Element that is required to be provided by Applicable Law.

14.3.6 If the receiving Party determines that the Network Element Bona Fide Request is technically feasible and access to the Network Element is required to be provided by Applicable Law, it shall promptly proceed with developing the Network Element Bona Fide Request upon receipt of written authorization from the requesting Party. When it receives such authorization, the receiving Party shall promptly develop the requested services, determine their availability, calculate the applicable

prices and establish installation intervals. Unless the Parties otherwise agree, the Network Element requested must be priced in accordance with Section 252(d)(1) of the Act.

14.3.7 As soon as feasible, but not more than ninety (90) days after its receipt of authorization to proceed with developing the Network Element Bona Fide Request, the receiving Party shall provide to the requesting Party a Network Element Bona Fide Request quote which will include, at a minimum, a description of each Network Element, the availability, the applicable rates, and the installation intervals.

14.3.8 Within thirty (30) days of its receipt of the Network Element Bona Fide Request quote, the requesting Party must either confirm its order for the Network Element Bona Fide Request pursuant to the Network Element Bona Fide Request quote or seek arbitration by the Commission pursuant to Section 252 of the Act.

14.3.9 If a Party to a Network Element Bona Fide Request believes that the other Party is not requesting, negotiating or processing the Network Element Bona Fide Request in good faith, or disputes a determination, or price or cost quote, or is failing to act in accordance with Section 251 of the Act, such Party may seek mediation or arbitration by the Commission pursuant to Section 252 of the Act.

15. Maintenance of Network Elements

If (a) LightWave reports to Verizon a Customer trouble, (b) LightWave requests a dispatch, (c) Verizon dispatches a technician, and (d) such trouble was not caused by Verizon's facilities or equipment in whole or in part, then LightWave shall pay Verizon a charge set forth in the Pricing Attachment for time associated with said dispatch. In addition, this charge also applies when the Customer contact as designated by LightWave is not available at the appointed time. LightWave accepts responsibility for initial trouble isolation and providing Verizon with appropriate dispatch information based on its test results. If, as the result of LightWave instructions, Verizon is erroneously requested to dispatch to a site on Verizon company premises ("dispatch in"), a charge set forth in the Pricing Attachment will be assessed per occurrence to LightWave by Verizon. If as the result of LightWave instructions, Verizon is erroneously requested to dispatch to a site outside of Verizon company premises ("dispatch out"), a charge set forth in the Pricing Attachment will be assessed per occurrence to LightWave by Verizon. Verizon agrees to respond to LightWave trouble reports on a non-discriminatory basis consistent with the manner in which it provides service to its own retail Customers or to any other similarly situated Telecommunications Carrier.

16. Combinations

16.1 Subject to the conditions set forth in Section 1 of this Attachment, Verizon shall be obligated to provide a Combination only to the extent provision of such Combination is required by Applicable Law. To the extent Verizon is required by Applicable Law to provide a Combination to LightWave, Verizon shall provide such Combination in accordance with the terms, conditions and prices for such Combination as provided in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

17. Rates and Charges

The rates and charges for UNEs, Combinations and other services, facilities and

arrangements, offered under this Attachment shall be as provided in this Attachment and the Pricing Attachment.

COLLOCATION ATTACHMENT

1. Verizon's Provision of Collocation

Verizon shall provide to LightWave, in accordance with this Agreement (including, but not limited to, Verizon's applicable Tariffs) and the requirements of Applicable Law, Collocation for the purpose of facilitating LightWave's interconnection with facilities or services of Verizon or access to Unbundled Network Elements of Verizon; provided, that notwithstanding any other provision of this Agreement, Verizon shall be obligated to provide Collocation to LightWave only to the extent required by Applicable Law and may decline to provide Collocation to LightWave to the extent that provision of Collocation is not required by Applicable Law. Subject to the foregoing, Verizon shall provide Collocation to LightWave in accordance with the rates, terms and conditions set forth in Verizon's Collocation tariff, and Verizon shall do so regardless of whether or not such rates, terms and conditions are effective.

2. LightWave's Provision of Collocation

Upon request by Verizon, LightWave shall provide to Verizon collocation of facilities and equipment for the purpose of facilitating Verizon's interconnection with facilities or services of LightWave. LightWave shall provide collocation on a non-discriminatory basis in accordance with LightWave's applicable Tariffs, or in the absence of applicable LightWave Tariffs, in accordance with terms, conditions and prices to be negotiated by the Parties.

911 ATTACHMENT

1. 911/E-911 Arrangements

- 1.1 LightWave may, at its option, interconnect to the Verizon 911/E-911 Selective Router or 911 Tandem Offices, as appropriate, that serve the areas in which LightWave provides Telephone Exchange Services, for the provision of 911/E-911 services and for access to all subtending Public Safety Answering Points (PSAP). In such situations, Verizon will provide LightWave with the appropriate CLLI codes and specifications of the Tandem Office serving area. In areas where E-911 is not available, LightWave and Verizon will negotiate arrangements to connect LightWave to the 911 service in accordance with applicable state law.
- 1.2 Path and route diverse Interconnections for 911/E-911 shall be made at the LightWave-IP, the Verizon-IP, or other points as necessary and mutually agreed, and as required by law or regulation.
- 1.3 Within thirty (30) days of its receipt of a complete and accurate request from LightWave, to include all required information and applicable forms, and to the extent authorized by the relevant federal, state, and local authorities, Verizon will provide LightWave, where Verizon offers 911 service, with the following at a reasonable fee, if applicable:
 - 1.3.1 a file via electronic medium containing the Master Street Address Guide ("MSAG") for each county within the LATA(s) where LightWave is providing, or represents to Verizon that it intends to provide within sixty (60) days of LightWave's request, local exchange service, which MSAG shall be updated as the need arises and a complete copy of which shall be made available on an annual basis;
 - 1.3.2 a list of the address and CLLI code of each 911/E-911 selective router or 911 Tandem office(s) in the area in which LightWave plans to offer Telephone Exchange Service;
 - 1.3.3 a list of geographical areas, e.g., LATAs, counties or municipalities, with the associated 911 tandems, as applicable.
 - 1.3.4 a list of Verizon personnel who currently have responsibility for 911/E-911 requirements, including a list of escalation contacts should the primary contacts be unavailable.
 - 1.3.5 any special 911 trunking requirements for each 911/E-911 selective router or 911 Tandem Office, where available, and;
 - 1.3.6 prompt return of any LightWave 911/E-911 data entry files containing errors, so that LightWave may ensure the accuracy of the Customer records.

2. Electronic Interface

LightWave shall use, where available, the appropriate Verizon electronic interface, through which LightWave shall input and provide a daily update of 911/E-911 database information related to appropriate LightWave Customers. In those areas where an electronic interface is not available, LightWave shall provide Verizon with all appropriate 911/E-911 information such as name, address, and telephone number via facsimile for

Verizon's entry into the 911/E-911 database system. Any 911/E-911-related data exchanged between the Parties prior to the availability of an electronic interface shall conform to Verizon standards, whereas 911/E-911-related data exchanged electronically shall conform to the National Emergency Number Association standards (NENA). LightWave may also use the electronic interface, where available, to query the 911/E-911 database to verify the accuracy of LightWave Customer information.

3. 911 Interconnection

Verizon and LightWave will use commercially reasonable efforts to facilitate the prompt, robust, reliable and efficient interconnection of LightWave systems to the 911/E-911 platforms and/or systems.

4. 911 Facilities

LightWave shall be responsible for providing facilities from the LightWave End Office to the 911 Tandem or selective router. LightWave shall deploy diverse routing of 911 trunk pairs to the 911 tandem or selective router.

5. Local Number Portability for use with 911

The Parties acknowledge that until Local Number Portability (LNP) with full 911/E-911 compatibility is utilized for all ported telephone numbers, the use of Interim Number Portability ("INP") creates a special need to have the Automatic Location Identification (ALI) screen reflect two numbers: the "old" number and the "new" number assigned by LightWave. Therefore, for those ported telephone numbers using INP, LightWave will provide the 911/E-911 database with both the forwarded number and the directory number, as well as all other required information including the appropriate address information for the Customer for entry into the 911/E-911 database system. Further, LightWave will output the telephone number to which the call has been forwarded (that is, the Customer's ANI) to the 911 Tandem office or selective router. LightWave will include their NENA five character Company Identification ("COID") for inclusion in the ALI display.

5.1 LightWave is required to enter data into the 911/E-911 database under the NENA Standards for LNP. This includes, but is not limited to, using LightWave's NENA COID to lock and unlock records and the posting of LightWave's NENA COID to the ALI record where such locking and migrating feature for 911/E-911 records are available or as defined by local standards.

6. PSAP Coordination

Verizon and LightWave will work cooperatively to arrange meetings with PSAPs to answer any technical questions the PSAPs, or county or municipal coordinators may have regarding the 911/E-911 arrangements.

7. 911 Compensation

LightWave will compensate Verizon for connections to its 911/E-911 platform and/or system pursuant to the rate schedule included in the Pricing Attachment.

8. 911 Rules and Regulations

LightWave and Verizon will comply with all applicable rules and regulations (including 911 taxes and surcharges as defined by local requirements) pertaining to the provision of 911/E-911 services in Massachusetts.

PRICING ATTACHMENT

1. General

- 1.1 As used in this Attachment, the term "Charges" means the rates, fees, charges and prices for a Service.
- 1.2 Except as stated in Section 2 or Section 3 of this Attachment, Charges for Services shall be as stated in this Section 1.
- 1.3 The Charges for a Service shall be the Charges for the Service stated in the Providing Party's applicable Tariff.
- 1.4 In the absence of Charges for a Service established pursuant to Section 1.3 of this Attachment, the Charges shall be as stated in Appendix A of this Pricing Attachment. For rate elements provided in Appendix A of this Pricing Attachment that do not include a Charge, either marked as "TBD" or otherwise, Verizon is developing such Charges and has not finished developing such Charges as of the Effective Date of this Agreement ("Effective Date"). When Verizon finishes developing such a Charge, Verizon shall notify LightWave in writing of such Charge in accordance with, and subject to, the notices provisions of this Agreement and thereafter shall bill LightWave, and LightWave shall pay to Verizon, for services provided under this Agreement on the Effective Date and thereafter in accordance with such Charge. Any notice provided by Verizon to LightWave pursuant to this Section 1.4 shall be deemed to be a part of Appendix A of this Pricing Attachment immediately after Verizon sends such notice to LightWave and thereafter.
- 1.5 The Charges stated in Appendix A of this Pricing Attachment shall be automatically superseded by any applicable Tariff Charges. The Charges stated in Appendix A of this Pricing Attachment also shall be automatically superseded by any new Charge(s) when such new Charge(s) are required by any order of the Commission or the FCC, approved by the Commission or the FCC, or otherwise allowed to go into effect by the Commission or the FCC (including, but not limited to, in a Tariff that has been filed with the Commission or the FCC), provided such new Charge(s) are not subject to a stay issued by any court of competent jurisdiction.
- 1.6 In the absence of Charges for a Service established pursuant to Sections 1.3 through 1.5 of this Attachment, if Charges for a Service are otherwise expressly provided for in this Agreement, such Charges shall apply.
- 1.7 In the absence of Charges for a Service established pursuant to Sections 1.3 through 1.6 of this Attachment, the Charges for the Service shall be the Providing Party's FCC or Commission approved Charges.
- 1.8 In the absence of Charges for a Service established pursuant to Sections 1.3 through 1.7 of this Attachment, the Charges for the Service shall be mutually agreed to by the Parties in writing.

2. Verizon Telecommunications Services Provided to LightWave for Resale Pursuant to the Resale Attachment

2.1 Verizon Telecommunications Services for which Verizon is Required to Provide a Wholesale Discount Pursuant to Section 251(c)(4) of the Act.

2.1.1 The Charges for a Verizon Telecommunications Service purchased by LightWave for resale for which Verizon is required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Retail Price for such Service set forth in Verizon's applicable Tariffs (or, if there is no Tariff Retail Price for such Service, Verizon's Retail Price for the Service that is generally offered to Verizon's Customers), less, to the extent required by Applicable Law: (a) the applicable wholesale discount stated in Verizon's Tariffs for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act; or (b) in the absence of an applicable Verizon Tariff wholesale discount for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act, the applicable wholesale discount stated in Appendix A for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act.

2.1.2 The Charges for a Verizon Telecommunications Service Customer Specific Arrangement ("CSA") purchased by LightWave for resale pursuant to Section 3.3 of the Resale Attachment for which Verizon is required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Retail Price for the CSA, less, to the extent required by Applicable Law: (a) the applicable wholesale discount stated in Verizon's Tariffs for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act; or (b) in the absence of an applicable Verizon Tariff wholesale discount for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act, the applicable discount stated in Appendix A for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act. Notwithstanding the foregoing, in accordance with, and to the extent permitted by Applicable Law, Verizon may establish a wholesale discount for a CSA that differs from the wholesale discount that is generally applicable to Telecommunications Services provided to LightWave for resale pursuant to Section 251(c)(4) of the Act.

2.1.3 Notwithstanding Sections 2.1 and 2.2 of this Attachment, in accordance with, and to the extent permitted by Applicable Law, Verizon may at any time establish a wholesale discount for a Telecommunications Service (including, but not limited to, a CSA) that differs from the wholesale discount that is generally applicable to Telecommunications Services provided to LightWave for resale pursuant to Section 251(c)(4) of the Act.

2.1.4 The wholesale discount stated in Appendix A shall be automatically superseded by any new wholesale discount when such new wholesale discount is required by any order of the Commission or the FCC, approved by the Commission or the FCC, or otherwise allowed to go into effect by the Commission or the FCC, provided such new wholesale discount is not subject to a stay issued by any court of competent jurisdiction.

2.1.5 The wholesale discount provided for in Sections 2.1.1 through 2.1.3 of this Attachment shall not be applied to:

- 2.1.5.1 Short term promotions as defined in 47 CFR § 51.613;
- 2.1.5.2 Except as otherwise provided by Applicable Law, Exchange Access services;
- 2.1.5.3 Subscriber Line Charges, Federal Line Cost Charges, end user common line Charges, taxes, and government Charges and assessment (including, but not limited to, 9-1-1 Charges and Dual Party Relay Service Charges).
- 2.1.5.4 Any other service or Charge that the Commission, the FCC, or other governmental entity of appropriate jurisdiction determines is not subject to a wholesale discount under Section 251(c)(4) of the Act.

2.2 Verizon Telecommunications Services for which Verizon is Not Required to Provide a Wholesale Discount Pursuant to Section 251(c)(4) of the Act.

- 2.2.1 The Charges for a Verizon Telecommunications Service for which Verizon is not required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Charges stated in Verizon's Tariffs for such Verizon Telecommunications Service (or, if there are no Verizon Tariff Charges for such Service, Verizon's Charges for the Service that are generally offered by Verizon).
- 2.2.2 The Charges for a Verizon Telecommunications Service customer specific contract service arrangement ("CSA") purchased by LightWave pursuant to Section 3.3 of the Resale Attachment for which Verizon is not required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Charges provided for in the CSA and any other Charges that Verizon could bill the person to whom the CSA was originally provided (including, but not limited to, applicable Verizon Tariff Charges).

2.3 Other Charges.

- 2.3.1 LightWave shall pay, or collect and remit to Verizon, without discount, all Subscriber Line Charges, Federal Line Cost Charges, and end user common line Charges, associated with Verizon Telecommunications Services provided by Verizon to LightWave.

3. LightWave Prices

Notwithstanding any other provision of this Agreement, the Charges that LightWave bills Verizon for LightWave's Services shall not exceed the Charges for Verizon's comparable Services, except to the extent that LightWave's cost to provide such LightWave's Services to Verizon exceeds the Charges for Verizon's comparable Services and LightWave has demonstrated such cost to Verizon, or, at Verizon's request, to the Commission or the FCC.

4. Section 271

If Verizon is a Bell Operating Company (as defined in the Act) and in order to comply with Section 271(c)(2)(B) of the Act provides a Service under this Agreement that Verizon is not required to provide by Section 251 of the Act, Verizon shall have the right to establish Charges for such Service in a manner that differs from the manner in which under

Applicable Law (including, but not limited to, Section 252(d) of the Act) Charges must be set for Services provided under Section 251.

5. Regulatory Review of Prices

Notwithstanding any other provision of this Agreement, each Party reserves its respective rights to institute an appropriate proceeding with the FCC, the Commission or other governmental body of appropriate jurisdiction: (a) with regard to the Charges for its Services (including, but not limited to, a proceeding to change the Charges for its services, whether provided for in any of its Tariffs, in Appendix A, or otherwise); and (b) with regard to the Charges of the other Party (including, but not limited to, a proceeding to obtain a reduction in such Charges and a refund of any amounts paid in excess of any Charges that are reduced).

APPENDIX A TO THE PRICING ATTACHMENT

VERIZON MASSACHUSETTS AND LIGHTWAVE

A. INTERCONNECTION¹

I. Call Transport & Termination

	Verizon Service	Non-recurring	Recurring
1.	Rate for Reciprocal Compensation Traffic delivered to a Verizon-IP or to a LightWave IP ²	Rates for Reciprocal Compensation are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time	
2.	Access charges for termination of intrastate and interstate Toll Traffic	Per Verizon FCC No. 11 interstate and DTE No. 15 intrastate access tariffs (charged in conjunction with Reciprocal Compensation Traffic, using Traffic Factor 1 and Traffic Factor 2, as appropriate) as amended from time to time	
3.	Entrance facilities, and transport, as appropriate, for Interconnection at Verizon End Office, Tandem Office, Serving Wire Center, or other Point of Interconnection	Per Verizon FCC No. 11 interstate and DTE No. 15 intrastate access tariffs for Feature Group D service as amended from time to time.	

¹ All rates and charges specified herein are pertaining to the Interconnection Attachment.

² See the last page regarding measurement and calculation of Reciprocal Compensation Traffic termination charges.

II. Transit Service

a. Tandem Transit Service (Switching) rates are found in DTE MA No. 17, as amended from time to time.

b. Dedicated Transit Service rates are found in DTE MA No. 17, as amended from time to time.

B. UNBUNDLED NETWORK ELEMENTS³

I. Ordering of Service rates are found in DTE MA No. 17.

II. Issuance, payment and Crediting of Customer Bills rates are found in DTE MA No. 17.

III. Unbundled Database Access⁴

a. 800/888 Database - rates are found in DTE MA No. 17, as amended from time to time.

b. LIDB

?? LIDB Service rates are found in DTE MA No. 17.

?? LIDB Record management rates are found in DTE MA No. 17, as amended from time to time.

c. Common Channel Signaling Network Interconnection (CCS/SS7) rates are found in DTE MA No. 17, as amended from time to time.

³ All rates and charges specified herein are pertaining to the Unbundled Network Element Attachment.

⁴ Verizon's proposed UNES, UNE combinations, and UNE pricing methodology reflect the FCC's current rules. Verizon does not agree that UNE prices must be based solely on forward-looking costs, and Verizon reserves the right to seek to change its UNE offerings and UNE prices if the FCC's rules are vacated or modified by the FCC or by a final, non-appealable judicial decision.

IV. Unbundled Local Loops⁵

(a) Monthly and Non-Recurring rates for Two Wire, Four Wire, (including analog, digital (xDSL), premium and High Capacity Links) are found in DTE MA No. 17, as amended from time to time.

V. Intrastate Collocation

All rates for intrastate collocation shall be charged at rates found in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

VI. Line Sharing

All rates for Line Sharing shall be charged at rates found in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

VII. Line Splitting

Rates for Line Splitting are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

VIII. Unbundled IOF

Rates for Unbundled IOF are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

IX. Unbundled Multiplexer

Rates for Unbundled Multiplexer are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

X. Access to Signaling Systems and Call-Related Database Access

Rates for Access to Signaling Systems and Call-Related Database Access are as set forth in Verizon's DTE MA No. 17, as amended from time to time.

XI. Unbundled Local Switching

Rates for Unbundled Local Switching are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

XII. Unbundled Tandem Switching

Rates for Unbundled Tandem Switching are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

XIII. Network Interface Device (NID) & House and Riser Cable

⁵ In compliance with the FCC order approving the merger of GTE Corporation and Bell Atlantic (CC Docket No. 98-1840), Verizon will offer limited duration promotional discounts on residential UNE Loops and UNE Advance Services Loops. The terms and conditions on which these promotional discounts are being made available can be found on <http://www.verizon.com/wise> for former GTE service areas and former Bell Atlantic service areas

Rates for Network Interface Device (NID) & House and Riser Cable are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

XIV. Expanded Extended Loop (EEL)

Rates for Expanded Extended Loop are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

XV. Combinations of UNE - Switch Sub Platform

Rates for Combinations of UNE - Switch Sub Platform are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

XVI. UNE-P Combinations

UNE-P is a combination of existing network elements. Accordingly, UNE-P rates shall be determined by summing the rates for individual network elements found in the MA DTE No. 17 as amended from time to time.

XVII. Unbundled Dark Fiber

Rates for Unbundled Dark Fiber are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

XVIII. Unbundled Sub-Loop Arrangements

Per Verizon's DTE MA No. 17 Tariff, as amended from time to time.

C. RESALE⁶

I. Wholesale Discounts

Wholesale discounts are as set forth in the Mass. DTE No.14 Tariff, as amended from time to time.

Month- to- month discounts (per qualifying retail rate):

- a. Where LightWave purchases Verizon-provided Operator Services
 - (1) Business 24.99%
 - (2) Residence 24.99%
- b. Where LightWave does not purchase Verizon Operator Services
 - (1) Business 29.47%
 - (2) Residence 29.47%

⁶ All rates and charges specified herein are pertaining to the Resale Attachment.

In compliance with the FCC Order approving the Merger of GTE Corporation and Bell Atlantic (CC Docket No. 98-1840), Verizon will offer limited duration promotional discounts on resold residential exchange access lines. The terms and conditions on which these promotional discounts are being made available can be found on Verizon's web site, at <http://www.verizon.com/wise> for former GTE service areas and former Bell Atlantic service areas.

D. CUSTOMER USAGE DETAIL CHARGES

Record Charges		
?	Per record processed (EMR format)	\$0.004085
??	Per record processed (Tandem Subtending Arrangement/EMR)	\$0.004085
?	Per record transmitted	\$0.000118
?	Per tape/cartridge	\$20.12

E. 911/E911 INTERCONNECTION

Monthly Rate:

- I. \$252.00 per month for an unequipped DS1 Port and \$100 per month per voice grade trunk activated and equipped on the DS1 port.
- II. \$0.05 per line per month for unbundled local Switching Element.
- III. Per Verizon's DTE MA No. 17 Tariff.

F. OPERATIONS SUPPORT SYSTEMS

a. 1. Rates for access to, development, maintenance and use of Operations Support Systems, as related to the provision of unbundled Network Elements during recovery period:

OSS for UNE Providers		
(1) Access to Electronic Interface	(per month)	\$4,907.00
(2) Transaction Cost	(per transaction)	\$1.19
(3) Customer Record Retrieval	(per view)	\$0.12
(4) Record Change Charge	(per change)	\$10.74
(5) Design Change Charge	(per change)	\$10.74
(6) Customer Loop Information	(per loop)	\$8.71
(7) Data entry search (15 minute period)	(per period)	\$10.74
(8) Out of scope request	(per request)	ICB

a.2. Rates for access to, development, maintenance and use of Operations Support Systems, as related to the provision of unbundled Network Elements after recovery period:

OSS for UNE Providers		
(1) Electronic Interface Maintenance Charge	(per transaction)	\$0.38
(2) Customer Record Retrieval	(per view)	\$0.12
(3) Record Change Charge	(per change)	\$10.74
(4) Design Change Charge	(per change)	\$10.74
(5) Customer Loop Information	(per loop)	\$8.71
(6) Data entry search (15 minute period)	(per period)	\$10.74
(7) Out of scope request	(per request)	ICB

b.1. Rates for all access to, development, maintenance and use of Operations Support Systems, as related to the provision of Resale during the recovery period:

OSS for Resellers		
(1) Recurring Establishment Charge	(per month)	\$2,557.00
(2) Non-recurring establishment Charge	(per transaction)	\$1.19
(3) Complex Order Charge	(per line)	\$16.27
(4) Service Center Maintenance Charge	(resold line/month)	\$0.21
(5) Customer Record Retrieval	(per view)	\$0.12

b.2. Rates for all access to, development, maintenance and use of Operations Support Systems, as related to the provision of Resale after the recovery period:

OSS for Resellers		
(1) Electronic Interface Maintenance Charge	(per transaction)	\$0.38
(2) Complex Order Charge	(per line)	\$16.27
(3) Service Center Maintenance Charge	(resold line/month)	\$0.21
(4) Customer Record Retrieval	(per view)	\$0.12

G. TIME AND MATERIALS CHARGES

Rates for Time and Materials are as set forth in Verizon's DTE MA No. 17 Tariff, as amended from time to time.

RECIPROCAL COMPENSATION TRAFFIC TERMINATION RATES

A. Charges by Verizon

(a) Traffic delivered to Verizon Tandem:
Tandem Rate.

(b) Traffic delivered directly to terminating Verizon End Office: End Office Rate.

B. Charges by LightWave

1. Single-tiered interconnection structure:

LightWave's rates for the termination of Verizon's Reciprocal Compensation Traffic under the single-tiered interconnection structure shall be recalculated once each year on each anniversary of the Effective Date (the "Rate Determination Date"). The methodology for recalculating the rates is as follows:

Tandem Minutes = Total minutes of use of Reciprocal Compensation Traffic delivered by LightWave to the Verizon Tandem for most recent billed quarter.

End Office Minutes = Total minutes of use Reciprocal Compensation Traffic delivered by LightWave directly to the terminating Verizon End Office for most recent billed quarter.

Total Minutes = Total minutes of use of Reciprocal Compensation Traffic delivered by LightWave to Verizon for most recent billed quarter.

LightWave Charge at the LightWave-IP =

$$\frac{(\textit{Tandem Minutes} \times \text{Tandem Rate}) + (\textit{End Office Minutes} \times \text{End Office Rate})}{\textit{Total Minutes}}$$

For the first year after the Effective Date, the LightWave charge shall be calculated based on the traffic data of the quarter immediately preceding such Effective Date, or if no such traffic exists, on the proportion of Reciprocal Compensation Traffic termination trunks to Verizon End Offices and to Verizon Tandems.

2. Multiple-tiered interconnection structure (if offered by LightWave to any carrier)

(a) Reciprocal Compensation Traffic delivered to LightWave Tandem: Tandem Rate

(b) Reciprocal Compensation Traffic delivered to terminating LightWave End Office/node: End Office Rate

C. Miscellaneous Notes

1. The LightWave termination rate under the single-tiered interconnection structure set forth above is intended to be a Reciprocal Compensation Traffic termination rate for Interconnection to the LightWave-IP within each LATA that is reciprocal and equal to the actual rates that will be charged by Verizon to LightWave under the two-tiered Reciprocal Compensation Traffic termination rate structure described above that will apply after the first anniversary of the Effective Date. The single LightWave termination rate is also intended to provide financial incentives to LightWave to deliver traffic directly to Verizon's terminating End Offices once LightWave's traffic volumes reach an appropriate threshold.