

Amendment No. 70 (NE)

SOW: p No
 o Yes

Contractor shall provide the Capacity Report to Customer by mutually-agreeable electronic means (e.g., e-mail). In addition, Contractor shall post the Capacity Report on the secure version of its NPAC Web site. The Capacity Report shall not be considered a Periodic Report under Exhibit H to this Agreement and shall not be subject to Article 32 of this Master Agreement.

10. AGREEMENTS CONCERNING LEAP**10.1 Amendment to the Master Agreement**

The Master Agreement is hereby amended as of the Amendment Effective Date by amendment of Section 15.8(f)(i) to read in its entirety as follows:

- (i) **User Data Elements Provided.** As part of the LEAP Service, Contractor shall make available (A) the NPAC SPID of the service provider associated with a telephone number, (B) the identity of that service provider, (C) the date on which the port(s) from one service provider (by NPAC SPID) to another service provider (by NPAC SPID) occurred with respect to that telephone number, (D) current contact name and number, if available, for each service provider as submitted in any manner to the NPAC by each service provider as its law enforcement and/or emergency contact, and (E) AltSPID parameter under the Optional Data Field, and no other User Data elements, for each of the 7 United States Service Areas. The elements referred in (A), (B), and (C) in the immediately preceding sentence shall be referred to as “**LEAP Data Elements.**”

10.2 Amendment to LEAP Services Agreement

The Parties shall promptly after the Amendment Effective Date issue an updated LEAP Service Agreement to reflect the new list of authorized LEAP Data Elements, although Contractor shall be authorized to add the AltSPID parameter under the Optional Data field in the list of LEAP Data Elements as part of the LEAP Service while the Parties issue an updated LEAP Service Agreement.

11. GRANTING OF SECURITY INTERESTS

The Master Agreement is hereby amended as of the Amendment Effective Date by amendment of Article 22 to read in its entirety as follows:

ARTICLE 22 — ASSIGNMENT, OTHER TRANSFER, AND SUBCONTRACTING**22.1 Consent Required**

Except as provided otherwise in this Article, neither Party shall (i) assign or otherwise transfer any rights or obligations under this Agreement or any Statement of Work without

CONFIDENTIAL

Page 16

Amendment No. 70 (NE)**SOW: No
 Yes**

the prior written consent of the other Party, or (ii) subcontract any obligations under this Agreement without the prior written consent of the other Party, and, in each case, such consent shall not be unreasonably withheld or delayed. Notwithstanding anything to the contrary in the preceding sentence, Contractor shall not require the prior consent of Customer to subcontract any portion of the work covered under this Agreement or under any Statement of Work to any subcontractor specifically mentioned in its Proposal. Any such assignment made without the prior written consent of the other Party shall be void. Contractor's request for consent to an assignment or transfer of rights or obligations to any entity which is not a Neutral Third Party shall constitute adequate grounds for withholding such consent.

22.2 Assignment of Monies Due

Notwithstanding the foregoing, Contractor may, upon written notice to Customer, assign monies due or that are to become due under a Statement of Work, provided that no such assignment may impose upon Customer or Users any obligations in addition to or different than those set forth in this Agreement or the subject Statement of Work, or preclude Customer or Users from dealing solely and directly with Contractor in all matters pertaining to this Agreement or the subject Statement of Work, including the negotiation of amendments and the settlement of disputed invoices.

22.3 Granting of Security Interests

Nothing in this Agreement or any other agreement between the Contractor or Customer shall (i) prohibit Contractor from granting a security interest in the Agreement or in any of its assets, including those used for, derived from or related to the Agreement, or (ii) prohibit Contractor from pledging or otherwise assigning monies due or that are to become due under the Master Agreement or any Statement of Work or any of Contractor's assets, including those used for, derived from or related to the Agreement or any Statement of Work, in either case as collateral or security in connection with incurring indebtedness; provided, however, that any enforcement of any such security interest by a lender (or agent or trustee for any lender or group of lenders), to the extent such enforcement involves the assignment or subcontracting of any duties or obligations of the Contractor under the Agreement or any Statement of Work, shall require the prior written consent of Customer.

The Contractor will provide written notice to Customer within five (5) business days after any such grant of a security interest in the Agreements, or pledge or assignment of monies due or that are to become due under the Agreement or any Statement of Work.

Any indebtedness that involves the grant of a security interest in the Agreement, or a pledge or assignment of monies due or that are to become due under the Agreement or any Statement of Work will be incurred by Contractor consistent with all of its then-applicable neutrality obligations, including without limitation those set forth in this

CONFIDENTIAL

Page 17

Amendment No. 70 (NE)**SOW: p No**
o Yes

Agreement and those issued by the U.S. Federal Communications Commission, and no such grant of a security interest or assignment or pledge may impose upon Customer or Users any obligations in addition to or different than those set forth in this Agreement and any Statement of Work, or preclude Customer or Users from dealing solely and directly with Contractor in all matters pertaining to this Agreement and any Statement of Work, including the negotiation of amendments and the settlement of disputed invoices, provided, however, that the terms of such grant of a security interest or assignment or pledge may permit the lender (or agent or trustee for any lender or group of lenders) to require payment directly from Users pursuant to the enforcement of any such security interest or assignment or pledge.

12. COOPERATION

Customer and Subscribing Customer shall duly authorize and direct its co-chairs and counsel, if necessary as decided by the Customer, to support, and reasonably cooperate and coordinate with Contractor in supporting all of the following in connection with any activity before any Regulatory Entity (as that Term is defined in Article 37 of the Master Agreement), including but not limited to appearances, requests, communications, filings, submissions, or other similar activities:

- (a) that to the best of its knowledge and belief, the Master Agreement, including all Statements of Work and amendments thereof, including this Amendment, were entered into in accordance with all legal, regulatory and organizational requirements applicable to Customer or Subscribing Customer; and
- (b) that in its judgment, this Amendment is in the best interests of the NPAC/SMS Users and Allocated Payors under the various Master Agreements.

For purposes of this Article 12, organizational requirements applicable to Customer or Subscribing Customer include those requirements normally set forth in operating agreements, by-laws, articles of incorporation, membership or shareholder agreement, or other similar documents governing Customer's operations, membership, management, or affairs. In addition no representatives of the Customer who are not members of the Customer, acting on behalf of the Customer, shall directly or indirectly act in opposition to the conduct and activities of the co-chairs and counsel under this Article 10. In support of the obligations set forth in this Article 12, Customer shall forward to any representative who is not a member of the Customer, and who is acting on behalf of Customer in connection with the conduct and activities of the co-chairs and counsel under this Article, any materials or information that Contractor provides Customer in support of this Article.

13. CONFORMING AMENDMENTS**13.1 Gateway Evaluation Process under Article 32****CONFIDENTIAL**

Page 18

Amendment No. 70 (NE)

SOW: No
 Yes

The Parties acknowledge that the amendments to Exhibit E to the Master Agreement as set forth in Article 35 of the Master Agreement replace the computation of an effective rate for TN Porting Event charges with an annual Net Regional Monthly Aggregate Porting Charge, and therefore the requirements of the Gateway Evaluation Process (“GEP”) set forth in Article 32 of the Master Agreement (originally introduced by SOW 25) must be amended to reflect that computation. Therefore, on the date on which Exhibit E, as amended and restated in accordance with Article 7 of this Amendment became effective, Article 32 is hereby deleted in its entirety and replaced by amended and restated Article 32, which is attached hereto as Attachment 2.

13.2 Aggregate Porting Charge under Section 6.2(b)(ii)

Section 6.2(b)(ii) of the Master Agreement is hereby deleted in its entirety and replaced with the following:

(ii) Ported Telephone Numbers.

The charge for TN Porting Events set forth in Category 2 of Schedule 1 of the Pricing Schedules of Exhibit E that occur in this Service Area shall be computed for every calendar month (the “**Aggregate Porting Charge**”) as set forth in set this Attachment 1 to Exhibit E. The Aggregate Porting Charge shall be allocated to Allocated Payors in the Service Area in accordance with the FCC’s Third Report and Order, CC Docket 95-116, RM 8549, FCC 98-82 (“**Cost Recovery Order**”).

13.3 Addition of New Article 37 to Master Agreement**(a) *Rescission of Certain Sections under Amendment No. 57***

Effective on the Amendment Effective Date, Sections 8.3, 8.4, 8.6, and 8.7 under Amendment No. 57 are hereby rescinded and shall have no further force or effect.

(b) *Addition of New Article 37 to Master Agreement*

The Master Agreement is hereby amended as of the Amendment Effective Date by the addition of Article 37, which is set forth in Attachment 4 hereto.

14. ADMINISTRATIVE AMENDMENTS**14.1 Notices**

The notices provision of Section 27.6 of the Master Agreement is hereby amended to provide that all notices or other communications required or permitted to be given under the Master Agreement shall be in writing (unless otherwise specifically provided herein) and delivered or addressed as follows:

If to Customer: Both then-current Co-Chairpersons of Customer at the address provided to Contractor

CONFIDENTIAL

Page 19

Amendment No. 70 (NE)**SOW: No
 Yes**

with a copy to: Dan Sciullo
c/o Berenbaum, Weinshienk & Eason, P.C.
370 Seventeenth Street, Suite 4800
Denver, Colorado 80202-5626

If to Contractor: Michael O'Connor
Vice President, Customer Relations
NeuStar, Inc.
46000 Center Oak Plaza
Sterling, VA 20166
Tel: (571) 434-5540
Fax: (631) 376-0849

with a copy to: General Counsel
NeuStar, Inc.
46000 Center Oak Plaza
Sterling, VA 20166
Tel: (571) 434-5744
Fax: (571) 434-5735

14.2 Exhibit I

Exhibit I is hereby deleted and replaced in its entirety with the copy attached hereto as Attachment 3.

15. MISCELLANEOUS

- 15.1 Except as specifically modified and amended hereby, all the provisions of the Master Agreement and the User Agreements entered into with respect thereto, and all exhibits and schedules thereto, shall remain unaltered and in full force and effect in accordance with their terms. From and after the Amendment Effective Date hereof, any reference in the Master Agreement to itself and any Article, Section or subsections thereof or to any Exhibit thereto, or in any User Agreement to itself or to the Master Agreement and applicable to any time from and after the Amendment Effective Date hereof, shall be deemed to be a reference to such agreement, Article, Section, subsection or Exhibit, as modified and amended by this Amendment. From and after the Amendment Effective Date, Statement of Work shall be a part of the Master Agreement, including its Exhibits, and, as such, shall be subject to the terms and conditions therein. Each of the respective Master Agreements with respect to separate Service Areas remains an independent agreement regarding the rights and obligations of each of the Parties thereto with respect to such Service Area, and neither this Amendment nor any other instrument shall join or merge any Master Agreement with any other, except by the express written agreement of the Parties thereto.
- 15.2 If any provision of this Amendment is held invalid or unenforceable the remaining provision of this Amendment shall become null and void and be of no further force or effect. If by rule, regulation, order, opinion or decision of the Federal Communications Commission or any other regulatory body having jurisdiction or delegated authority with respect to the subject matter of this Amendment or the Master Agreement, this

CONFIDENTIAL

Page 20

Amendment No. 70 (NE)**SOW: p No****o Yes**

Amendment is required to be rescinded or is declared ineffective or void in whole or in part, whether temporarily, permanently or ab initio (an "Ineffectiveness Determination"), immediately upon such Ineffectiveness Determination and without any requirement on any party to appeal, protest or otherwise seek clarification of such Ineffectiveness Determination, this Amendment shall be rescinded and of no further force or effect retroactively to the Amendment Effective Date. Consequently, the Master Agreement in effect immediately prior to the Amendment Effective Date shall continue in full force and effect in accordance with its terms, unchanged or modified in any way by this Amendment. In the event of an Ineffectiveness Determination, any amounts that would have otherwise been due and payable under the terms and conditions of the Master Agreement, in effect immediately prior to the Amendment Effective Date (including, but not limited to any adjustments necessary to retroactively re-price TN Porting Events under Exhibit E from the Amendment Effective Date through the date of the Ineffectiveness Determination, or other amounts or credits, to any party hereunder), shall be invoiced by Contractor at the earliest practical Billing Cycle in accordance with the Master Agreement and shall be due and payable in accordance with the applicable invoice therewith or shall be credited or applied for the benefit of the Customer or any Allocated Payor in accordance with the Master Agreement.

- 15.3 This Amendment may be executed in two or more counterparts and by different parties hereto in separate counterparts, with the same effect as if all parties had signed the same document. All such counterparts shall be deemed an original, shall be construed together and shall constitute one and the same instrument.
- 15.4 If at any time hereafter a Customer, other than a Customer that is a party hereto desires to become a party hereto, such Customer may become a party hereto by executing a joinder agreeing to be bound by the terms and conditions of this Amendment, as modified from time to time.
- 15.5 This Amendment is the joint work product of representatives of Customer and Contractor; accordingly, in the event of ambiguities, no inferences will be drawn against either party, including the party that drafted the Agreement in its final form.
- 15.6 This Amendment sets forth the entire understanding between the Parties with regard to the subject matter hereof and supersedes any prior or contemporaneous agreement, discussions, negotiations or representations between the Parties, whether written or oral, with respect thereto. The modifications, amendments and price concessions made herein were negotiated together and collectively, and each is made in consideration of all of the other terms herein. All such modifications, amendments and price concessions are interrelated and are dependent on each other. No separate, additional or different consideration is contemplated with respect to the modifications, amendments and price concessions herein.

CONFIDENTIAL

Page 21

Amendment No. 70 (NE)

SOW: No
 Yes

IN WITNESS WHEREOF, the undersigned have executed this Amendment:

CONTRACTOR: NeuStar, Inc.

By: /s/ Michael O'Connor
Its: VP --- Customer Relations
Date: 28 JAN 2009

CUSTOMER: North American Portability Management LLC, as successor in interest to and on behalf of the Northeast Carrier Acquisition Company, LLC

By: /s/ Melvin Clay
Its: NAPM LLC Co-Chair
Date: January 28, 2009

By: /s/ Timothy Decker
Its: NAPM LLC Co-Chair
Date: 28 JAN 2009

CONFIDENTIAL

Amendment No. 70 (NE)

**SOW: No
 Yes**

**ATTACHMENT 1
TO
AMENDMENT NO. 70
Amended and Restated Exhibit E**

CONFIDENTIAL

Page 23

Amendment No. 70 (NE)

SOW: No
 Yes

EXHIBIT E — PRICING SCHEDULES

The following schedules set forth the prices at which Contractor will be compensated for rendering the Services under the Agreement. A general description of these charges and the methods of billing therefor are set forth in Section 6 of the Agreement. See Agreement for other applicable charges.

Schedule 1
Service Element Fees/Unit Pricing

<u>Category</u>	<u>Service Element</u>	<u>Unit</u>	<u>Price</u>
1. Monthly Charges	Dial-up Port to NPAC network	per dial-up port	\$400.00
	Dedicated Port to NPAC network ¹	per dedicated line port (DS-0)	\$500.00

¹ Monthly port charges recover various capital, operating, and maintenance costs associated with providing access to the NPAC/SMS service to NPAC Users through dedicated links. These costs are generally related to costs of the data communications network infrastructure and various communications, security, operating, and help-desk services, delivered at the required 99.9% service availability levels, not associated with the delivery of NPAC/SMS transactions or record storage. The specific cost elements include:

- Fault-tolerant data communications routers
- Fault-tolerant data communications IP switches
- Fault-tolerant front-end communications servers for CMISE and secure web services
- Network infrastructure: wiring, cross-connect panels, test and monitoring equipment
- RADIUS CHAP authentication servers
- SecurID Smartcard ACE authentication servers
- V-One Smartwall Internet authentication servers
- Security key certification servers
- Internet firewall bastion servers and access facilities
- Inter-NPAC site communications facilities
- Network management systems
- Network operations, monitoring, and service level reporting
- Traffic monitoring, engineering, management, and network utilization reporting
- Network-portion of help-desk
- Domain name service
- E-mail service
- FTP service
- Public web (electronic bulletin board) service
- NNTP (network time) service

- Encryption key management
- Link engineering services

CONFIDENTIAL

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Amendment No. 70 (NE)

**SOW: p No
o Yes**

<u>Category</u>	<u>Service Element</u>	<u>Unit</u>	<u>Price</u>
	Dedicated Port to NPAC network ²	per dedicated line port (DS-1)	\$ 4,000.00
	Dedicated Port to NPAC network per virtual POP	per dedicated line port (DS-0)	\$ 770.00
	Dedicated Port to NPAC network per virtual POP	per dedicated line port (DS-1)	\$ 6,150.00
	VPN Access to NPAC network ³	per VPN Connection up to 24Mbs	\$ 400.00

2. Per User/Per Request Charges

Billable NPAC User Support Manual Request ⁴	For a contact initiated during Normal Business Hours	\$ 15.00 per Billable NPAC User Support Manual Request
Billable NPAC User Support Manual Request ⁴	For a contact initiated outside of Normal Business Hours	- \$100 per hour, or fraction thereof, of actual cumulative contact outside of Normal Business Hours plus - \$15.00 per Billable NPAC User Support Manual Request, if the contact constitutes a Billable NPAC User Support Manual Request

- Link, firewall, and authentication provisioning
- Link activation testing
- Network service activation testing (for non-SMS services, such as: DNS, e-mail, FTP, NNTP, public web and routing protocols)
- Periodic link testing

² See Note 1 above.

³ The foregoing does not include costs and charges related to User's access to the Internet, which costs and charges are the sole responsibility of the User.

⁴ Charge applies only to "Billable NPAC User Support Manual Requests" in accordance with Section 6.2(b)(i) of the Agreement. For such purposes, Billable NPAC User Support Manual Requests shall only include those contacts listed below in the Billable NPAC User Support Manual Requests Table, as such table may be amended from time to time in writing by agreement of the Contractor and the Customer, executed by such Contractor and Customer.

CONFIDENTIAL

Amendment No. 70 (NE)

SOW: p No
o Yes

<u>Category</u>	<u>Service Element</u>	<u>Unit</u>	<u>Price</u>
	TN Porting Event ⁵	Subject to the requirements of the Agreement, the Aggregate Porting Charge allocable to Allocated Payors in the Service Area is determined in accordance with the following: <u>Rate Card No. 1:</u> Deleted. <u>Rate Card No. 2:</u> Deleted. <u>Rate Card No. 3 (2007):</u> Deleted. <u>Rate Card No. 4 (2009 and Thereafter):</u> As set forth in Attachment 1A to this Exhibit E. <u>Rate Card No. 5 (2009 and thereafter):</u> As set forth in Attachment 1 to this Exhibit E.	

5 For purposes of determining the Aggregate Porting Charge in the Service Area, a TN Porting Event shall be considered to have occurred and shall be included in computing the Aggregate Porting Charge (and any component thereof, including applicable adjustments) in the Service Area only when both events (a) and (b) below occur:

(a) **Request Compliance** — The NPAC/SMS complies with a Proper Request that results in a create, delete, or modify of an active subscription version (an “Active SV”) for all LNP Types. A request that results in a create, delete, or modify of an Active SV for all LNP Types is deemed to be proper (a “Proper Request”) when such request is initiated, generated, or otherwise authorized by:

- 1) an NPAC User using its NPAC SOA interface or LSMS interface or the NPAC operations GUI,
- 2) an NPAC User relying on a surrogate’s NPAC SOA interface or LSMS interface or a surrogate’s use of the NPAC operations GUI (the surrogate is an NPAC User),
- 3) an NPAC User acting through NPAC personnel,
- 4) an NPAC User’s surrogate acting through NPAC personnel (the surrogate is an NPAC User),
- 5) the National Pooling Administrator in its role as defined by the INC Thousand Block Number Pool Administration Guidelines acting through NPAC personnel, or
- 6) any other method or process approved by the NAPM LLC.

A Proper Request that involves NPAC personnel can be made in writing or orally and shall be documented by NPAC personnel. Contractor will credit and not include any TN Porting Events in computing the Aggregate Porting Charge (and any component thereof, including applicable adjustments) that are generated as a result of NPAC personnel error. Contractor will maintain adequate documentation for auditing purposes.

(b) **Initial Broadcast** — Following a Proper Request, there is an initial broadcast notifying all subtending LSMSs for which the broadcast is destined that the Active SV has been created, deleted, or modified as a result of the Proper Request (the “Initial Broadcast”) for all LNP types. For LNP type POOL, an Initial Broadcast is both (i) the broadcast to EDR-enabled LSMSs of a create, delete, or modify of an active block (an “Active Block”) (the broadcast being a broadcast of NPA-NXX-X data rather than of SV data), and (ii) the broadcast to non EDR-enabled LSMSs of the corresponding LNP Type POOL SVs that are created, deleted, or modified as a result of an Active Block being created, deleted, or modified. If there is no LSMS available to receive the Initial Broadcast of the created, deleted, or modified Active SV (i) due to the use of a filter or (ii) because an Active Block is involved and all subtending LSMSs for which the broadcast is destined are EDR-enabled, then the creation, deletion, or modification of the Active SV in the NPAC SMS following a Proper Request shall be deemed sufficient for the TN Porting Event to be considered to have occurred. Re-broadcasts are not TN Porting Events.

CONFIDENTIAL

Amendment No. 70 (NE)

**SOW: p No
o Yes**

Category	Service Element	Unit	Price
	Standard Reports ⁶	per standard report generated	\$ 150.00
	Initial Ad Hoc Reports ⁷	per hour	\$ 100.00
	Subsequent Ad Hoc Reports	Per Report	\$ 100.00
	Bulk Data Downloads for delivery at a specific time <i>outside</i> Normal Business Hours. ⁸	Per Bulk Data Download per Service Area	\$ 150.00
	Bulk Data Download provided to User with suspended association during the Initial Suspension period	BDD per NPAC Service Area provided during Initial Suspension period (one per day per applicable NPAC Service Area must be accepted), as provided by SOW24, as revised.	One BDD in each NPAC Service Area per day: no charge

A modify of an Active SV as a result of a Proper Request in (a) above, followed by the Initial Broadcast in (b) above, is considered the occurrence of only a single TN Porting Event irrespective of the number of fields in the Active SV being replaced and irrespective of whether the data in the field(s) actually is changed. A subsequent modify of the same Active SV as a result of a Proper Request in (a) above, followed by the Initial Broadcast in (b) above, is considered to be the occurrence of an additional TN Porting Event. The modify of an Active SV that is considered to cause the occurrence of TN Porting Event applies only to the following fields:

- Location Routing Number (LRN)
- CLASS Destination Point Code (CLASS DPC)
- CLASS Sub System Number (CLASS SSN)
- LIDB Destination Point Code (LIDB DPC)
- LIDB Sub System Number (LIDB SSN)
- CNAM Destination Point Code (CNAM DPC)
- CNAM Sub System Number (CNAM SSN)
- ISVM Destination Point Code (ISVM DPC)
- ISVM Sub System Number (ISVM SSN)
- WSMSC Destination Point Code (WSMSC DPC)
- WSMSC Sub System Number (WSMSC SSN)
- Billing ID
- End User Location Value

- End User Location Type
- SV Type
- Optional Data
 - o altSPID
 - o altEULV
 - o altEULT
 - o altBillingID

The determination of the occurrence of a TN Porting Event is unaffected by the use of ranges, or the involvement of an Active Block, because the occurrence of a TN Porting Event is only based on whether an Active SV is created, deleted, or modified in the NPAC/SMS and is not related to the number of messages sent between the NPAC/SMS and its Users after or in connection with a Proper Request. Each Active SV is associated with a single TN. Neither the provision of a Bulk Data Download (i.e., "BDD") nor a SPID Mass Update Request File (i.e., "SMURF") is an Initial Broadcast.

- 6 There is no charge for the "User Profile" Standard Report.
- 7 At Contractor's discretion, an Initial Ad Hoc Report request will be treated as a subsequent Ad Hoc Report request if it is similar to a previously requested Ad Hoc Report.
- 8 There is no charge for Bulk Data Downloads that are to be delivered at a specific time within Normal Business Hours. Requests that fail to state delivery time will be treated as requests for delivery during Normal Business Hours.

CONFIDENTIAL

Page 27

Amendment No. 70 (NE)

SOW: No
 Yes

Category	Service Element	Unit	Price
	Bulk Data Download provided to User with suspended association during the Continued Suspension period.	BDD per NPAC Service Area provided during Continued Suspension period (one per day per applicable NPAC Service Area must be accepted), as provided by SOW24, as revised.	\$500 for each NPAC Service Area BDD provided
	Inadvertent Port (SOW 19)	Per request for assistance, up to 15 TNs or ranges of TNs	\$ 250.00
	Dedicated Technical Support ⁹	Per hour	\$ 150.00
3. Non-Recurring Charges			
	Log-on ID Charge ¹⁰	one time per Log-on ID established	\$ 1,000.00
	Mechanized Interface ¹¹	one time per interface association	\$ 17,600.00

- 9 Dedicated Technical Support is provided only upon User’s request. The rate does not apply to testing support such as is done for new User Testing, or in connection with new NPAC release testing, or for testing against a current NPAC release.
- 10 The one-time Log-on ID charge recovers the costs associated with establishing, testing, and maintaining a Log-on ID for either a mechanized system (system User) or NPAC operations GUI (OpGUI) User. OpGUI Users are issued SecurID smartcards that are used to authenticate OpGUI access. System Users, while they do not use smartcards, have additional ACSE-related security facilities (encryption key list management) that are roughly equivalent in cost to the smartcard. The specific cost elements include:
- Application processing costs (access privileges questionnaire, User verification, etc.)
 - Assignment of interim Log-on prior to issuance of permanent Log-on ID
 - Provisioning of NPAC/SMS User table, NPAC/SMS system
 - Smartcard issuance and provisioning for OpGUI Users
 - Generation and exchange of encryption key list for system Users
 - Log-on, access privileges and smartcard authentication testing
- 11 The Mechanized Interface charge recovers the costs of provisioning and Turnup Testing associated with activating a mechanized interface association to the NPAC/SMS. The specific cost elements include: (a) provisioning of ACSE and CMISE access tables, security monitoring tables, and network management systems; and (b) Turnup Testing consisting of stack-to-stack, object-to-object, and application-to-application testing. The Mechanized Interface charge also includes the cost of any retesting of the NPAC/SMS required as the result of any Material Defect identified during such testing or any retesting. “Turnup Testing” is currently defined, per the ICC NPAC SMS Committee and Operations Committee, as a 7-week process, involving 5 weeks of actual testing consisting of a majority subset of the interface Interoperability Testing. These tests are conducted between the production LSMS/SOA carrier system and the NPAC/SMS Production Computer System over the production network facilities prior to activating it as a live interface association. This Service

Element is only required for Users with mechanized interfaces to the NPAC/SMS, and not for Users that will only use the OpGUI interface to the NPAC/SMS. Turnup Testing, while conducted at the NPAC/SMS Production Computer System, is performed by a separate support team and is therefore an incremental cost to normal NPAC/SMS operations. If the Turnup Test Plan is modified for any reason and such modification results in an agreed upon reduction in the required level of mechanized interface testing, the Parties will enter into a Statement of Work hereunder providing for an appropriate adjustment to the prices set forth in Category 3 of Schedule 1 of the Pricing Schedules to reflect the reduced level of testing.

CONFIDENTIAL

Page 28

Amendment No. 70 (NE)

SOW: No
 Yes

Billable NPAC User Support Manual Request Table

Category	Description of Request
Create SV	New SP asks Help Desk to issue new SP Create, for single TN or range of TNs
Create SV	Old SP asks Help Desk to issue old SP Create, for single TN or range of TNs
Prevent SV Activation	Old SP asks Help Desk to change concur flag to "false" on pending SV (or SVs, for range of TNs)
Activate SV	New SP asks Help Desk to activate a pending SV for a single TN (or SVs, for a range of TNs)
Remove Prevention of SV Activation	Old SP (or New SP, after due date or t2 timer's expiration) asks Help Desk to change concur flag to "true" on pending SV (or SVs, for range of TNs)
Modify Pending SV	New SP asks Help Desk to modify single SV (or SVs, for a range of TNs)
Disconnect TN	Current SP asks Help Desk to issue disconnect for TN (or range of TNs)
Cancel Pending SV	Old SP or New SP asks Help Desk to issue its cancel for pending SV (or SVs, for range of TNs)
Look Up SV	SP asks Help Desk to look up active SV for a TN (or SVs for range of TNs)
Modify Active SV	Current SP asks Help Desk to modify single active SV
Audit SV	SP asks Help Desk to issue audit request for a TN, or range of TNs, with SV(s) in active state
Look Up Network Data	SP asks Help Desk to look up NPA-NXX, NPA-NXX ID, LRN, or LRN ID to determine associated SPID and/or ID
Change Network Data	SP asks Help Desk to add to or to delete from the NPAC's network data an NPA-NXX(s) or LRN(s). Requests to delete these data can be accommodated only if the SP making the request is the SP that originally entered the data. This limitation does not apply in the case where the SP asks Help Desk to delete an NPA-NXX (but not an LRN) where the NPA is not associated with the NPAC Service Area in which the NPA-NXX is open.
Change GUI Password	SP asks Help Desk to change its GUI Password
Re-enter GUI Logon	SP asks Help Desk to re-enter its GUI Logon which SP has allowed to expire

CONFIDENTIAL

Page 29

Amendment No. 70 (NE)
SOW: p No
oYes

**Schedule 2
 Training Charges**

<u>Service Element</u>	<u>Unit</u>	<u>Cost Per Participant</u>
On Site Training ¹²	1-2 trainees	\$ 795.00
	3-5 trainees	\$ 715.50
	6 or more trainees	\$ 636.00
Off-Site Training ^{13 14}	1-2 trainees	\$ 715.50
	3-5 trainees	\$ 643.95
	6 or more trainees	\$ 572.40

**Schedule 3
 Interoperability Testing**

<u>Category & Service Element</u>	<u>Unit</u>	<u>Price</u>
LSMS Interoperability Testing		
Initial Test	per new carrier system release (includes up to 5 weeks)	\$48,000
Additional Testing	per each additional day after initial test of same release	\$ 2,700
SOA Interoperability Testing		
Initial Test	per new carrier system release (includes up to 3 weeks)	\$32,000
Additional Testing	per each additional day after initial test of same release	\$ 2,700

- 12 Training consists of LTI User training lasting 8 to 12 hours.
- 13 A charge will be assessed for the instructor's reasonable travel, lodging, and other expenses in addition to the per-trainee charge shown above.
- 14 Virtual Private Network (VPN) access is available for off-site training at no additional charge. However, if NeuStar technical support is required to establish the temporary VPN arrangement, then the support is provided at the rate for Dedicated Technical Support.

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Amendment No. 70 (NE)
SOW: No
 Yes

Schedule 4
Schedule of Representative Hourly Labor Charges
Applicable to Statements of Work
For Contract Years 1 Through End

<u>Labor Category</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5*</u>
User Support Services Staff	\$35.25	\$37.01	\$38.86	\$40.81	\$42.85
Systems Administrator	\$55.39	\$58.16	\$61.07	\$64.13	\$67.33
Network Analyst	\$45.32	\$47.59	\$49.97	\$52.47	\$55.09
Systems Support Analyst	\$48.34	\$50.76	\$53.30	\$55.96	\$58.76
Administrative Services Staff	\$30.21	\$31.72	\$33.31	\$34.98	\$36.72
Training and Documentation	\$45.32	\$47.59	\$49.97	\$52.47	\$55.09

* Amounts after Year 5 for each Labor Category shall be increased by 5% annually from the prior year.

Schedule 5

Reserved

Schedule 6

Reserved

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Page 31

Amendment No. 70 (NE)

SOW: No

Yes

**ATTACHMENT 1
TO
EXHIBIT E**

Calculation of Aggregate Porting Charge
Beginning January 1, 2009 and Continuing Through the End of the Initial Term

A. Explanatory Statement

Commencing on January 1, 2009, and concluding at the end of the Initial Term of the Agreement, the charge for TN Porting Events that occur in this Service Area shall be based upon a fixed fee, subject to adjustments as set forth in the Agreement, Exhibit E and this Attachment 1 to Exhibit E. That fee shall be computed for every calendar month (the “**Aggregate Porting Charge**”) as set forth in this Attachment 1 to Exhibit E, and the Aggregate Porting Charge shall be allocated and billed to Allocated Payors in this Service Area in accordance with Section 6.2(b)(ii) of the Agreement.

B. Aggregate Porting Charge Derived From Net Regional Monthly Aggregate Porting Charge

The Aggregate Porting Charge for this Service Area shall be computed for every calendar month (the “**Applicable Month**”) of each calendar year (the “**Applicable Year**”) during the Initial Term of the Agreement, and shall equal the Net Regional Monthly Aggregate Porting Charge (as defined in Section 35.1 of the Agreement) for the Applicable Month minus any Monthly GEP Porting Charge Adjustment for the Applicable Month.

CONFIDENTIAL

Page 32

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Amendment No. 70 (NE)SOW: No Yes

**ATTACHMENT 1A
TO
EXHIBIT E**

Rate Card No. 4 Calculation of Monthly Aggregate Porting Charge
Beginning January 1, 2009 and Continuing Through the End of the Initial Term Only As Provided Below

Explanatory Statement

The following Rate Card No. 4 shall be used and shall apply only for purposes of computing the National Monthly Floor Threshold Adjustment in Section 35.6 of the Agreement and for purposes of computing the National Monthly Ceiling Threshold Adjustment in Section 35.7 of the Agreement.

1. Determination of Annualized Volume

(a) The total number of TN Porting Events in a calendar month for all United States Service Areas served by Contractor is designated the “**Aggregate Monthly Volume**.”

(b) The sum of the Aggregate Monthly Volume for each month to date within a calendar year is designated as the “**Year-to-Date Volume**.”

(c) The Year-to-Date Volume divided by the number of calendar months to date within a calendar year is designated the “**Average Monthly Volume**” for all United States Service Areas served by Contractor.

(d) The product of the Average Monthly Volume and the number twelve (12) is designated the “**Annualized Volume**” for all United States Service Areas served by Contractor.

2. Calculation of the Effective Rate

(a) The “**Effective Rate**” corresponding to the Annualized Volume for all United States Service Areas served by Contractor is derived in accordance with Paragraph 4 below.

3. Determination of Aggregate Porting Charge

(a) The product of the Effective Rate and the Year-to-Date Volume is designated as the “**Year-to-Date Aggregate Porting Charge**” for all United States Service Areas served by Contractor for all calendar months to date in the current calendar year.

(b) The “**Adjusted Aggregate Porting Charge**” for all United States Service Areas serviced by Contractor associated with the current calendar month is determined by subtracting the preceding month’s (if any) Year-to-Date Aggregate Porting Charge from the current month’s Year-to-Date Aggregate Porting Charge.

(c) The Adjusted Aggregate Porting Charge is then allocated to the Subscribing Customer based on each Service Area’s pro-rata share of TN Porting Events for the current calendar month to determine the Subscribing Customer’s monthly Aggregate Porting Charge, which is then billed and allocated to the Users in the Subscribing Customer’s Service Area in accordance with the Contractor Services Agreement for NPAC/SMS.

4. Effective Rate Calculation

The Effective Rate shall be calculated, on a straight-line basis using the “**Effective Rate Calculation Formula**” and “**Effective Rate Calculation Table**” set forth below for an Annualized Volume between 200,000,000 and 587,500,000. For an Annualized Volume less than or equal to 200,000,000, the Effective Rate shall equal a flat rate equal to Ninety Five Cents (\$0.95). For an Annualized Volume greater than or equal to 587,500,000, the Effective Rate shall equal a flat rate of Seventy Five Cents (\$0.75).

The Effective Rate Calculation Formula is for calculating, with Annualized Volume as an input from Paragraph 1 above, an Effective Rate, which in turn is an input into Paragraph 3 above for determining the Year-to-date Aggregate Porting Charge each month. The Effective Rate Calculation Formula is defined as the following:

CONFIDENTIAL

Page 33

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Amendment No. 70 (NE)**SOW: p No****o Yes**

$$\text{Effective Rate} = B + [(A - \text{Annualized Volume}) \times (D) / (C)]$$

Inputs "A", "B", "C" and "D" in the Effective Rate Calculation Formula are determined by the values corresponding to the row, for which the Annualized Volume is Greater than the Annualized Volume Level Lower and less than or Equal to the Annualized Volume Level Upper, in the Effective Rate Calculation Table below.

EFFECTIVE RATE CALCULATION TABLE

Annualized Volume Level Lower	Annualized Volume Level Upper (A)	Rate Corresponding to Lower Level	Rate Corresponding to Upper Level (B)	Incremental Volume Between Upper and Lower (C)	Incremental Rate Reduction Between Upper and Lower (D)
200,000,000	250,000,000	\$ 0.95	\$ 0.93	50,000,000	\$ 0.02
250,000,000	312,500,000	\$ 0.93	\$ 0.91	62,500,000	\$ 0.02
312,500,000	337,500,000	\$ 0.91	\$ 0.89	25,000,000	\$ 0.02
337,500,000	362,500,000	\$ 0.89	\$ 0.87	25,000,000	\$ 0.02
362,500,000	387,500,000	\$ 0.87	\$ 0.85	25,000,000	\$ 0.02
387,500,000	412,500,000	\$ 0.85	\$ 0.83	25,000,000	\$ 0.02
412,500,000	437,500,000	\$ 0.83	\$ 0.81	25,000,000	\$ 0.02
437,500,000	462,500,000	\$ 0.81	\$ 0.80	25,000,000	\$ 0.01
462,500,000	487,500,000	\$ 0.80	\$ 0.79	25,000,000	\$ 0.01
487,500,000	512,500,000	\$ 0.79	\$ 0.78	25,000,000	\$ 0.01
512,500,000	537,500,000	\$ 0.78	\$ 0.77	25,000,000	\$ 0.01
537,500,000	562,500,000	\$ 0.77	\$ 0.76	25,000,000	\$ 0.01
562,500,000	587,500,000	\$ 0.76	\$ 0.75	25,000,000	\$ 0.01

The Effective Rate, which is used to determine the charge per TN Porting Event under "Rate Card No. 4," as set forth in this Schedule 1A under Exhibit E, applies only with respect to each calendar month in which the Service Area's monthly Aggregate Porting Charge is calculated, and in no event shall a different Effective Rate, and consequently a TN Porting Event charge, be applied on account, for example, that the actual cumulative TN Porting Events for an entire calendar year differs from the "Annualized Volume" in any one calendar month.

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Page 34