Electronic Services Agreements

This Electronic Services Agreement amends your brokerage account agreement(s) and replaces any prior agreement between you and Schwab regarding your use of the Electronic Services.

1. Use of Electronic Services:

Scope of the Agreement. This Electronic Services Agreement (the "Agreement") between you and Schwab states the terms and conditions that govern your use of Schwab's Electronic Services. It is part of your brokerage account agreement. The term "we", when used below, means Schwab. The term "Electronic Services" includes all of Schwab's computer, telephonic, e-mail or wireless services or systems. This includes services and information accessible through Schwab, or service providers used by Schwab, including, but not limited to:

- Schwab's proprietary software such as Velocity®; Schwab's Web site;
- Schwab's computers and networks which are accessible externally;
- VoiceBroker™, Telebroker® and ServiceBroker®;
- Schwab's wireless services, including PocketBroker™; and
- Any other computer, telephonic or wireless securities trading services or information system
- Schwab provides to you, including successors to the systems described above.

Services Provided. Schwab's Electronic Services allow you to enter orders to buy and sell certain securities, stock options and mutual funds within your Schwab account, and to access securities price quotations, investing information and your personal account information. The Electronic Services are accessible via computer, telephonic or wireless transmissions for use on compatible personal, home or small business computers, including Internet appliances with modems, terminals and network computers, as well as various wireless devices. You understand that in order for Schwab's Electronic Services, including future services available from Schwab, to perform to your satisfaction, or at all, you are solely responsible for the hardware, software or other technology you use to access Schwab's Electronic Services. Schwab will not be responsible for any service difficulties resulting from your failure to possess technology adequate to use Schwab's Electronic Services to your satisfaction.

Your Agreement. By using Schwab's Electronic Services, you agree to comply with the terms and conditions of this Agreement. Schwab has the right to modify or terminate this Agreement in any way at any time, and we will provide you with notice of any modifications. You further agree to abide by any rules, procedures, standards, requirements or other conditions we may establish in connection with the use of our Electronic Services or any other electronic communications services made available by Schwab.

2. Risks of Electronic Trading:

Access to the Electronic Services may be limited or unavailable during periods of peak demand, market volatility, systems upgrades, maintenance or for other reasons. If the Electronic Services are unavailable or delayed at any time, you agree to use alternative means to place your orders such as calling a Schwab representative or visiting one of our branch offices. Schwab will not be liable to you if you are unable to access your account information or request a transaction through the Electronic Services. (See Limitations of Liability, Section 5)

When you use the Electronic Services to place a trade order, you acknowledge that your order may not be reviewed by a registered representative before being routed to an exchange for execution and you also will not have the opportunity to ask questions or otherwise interact with a Schwab representative. By placing a trade through the Electronic Services, you voluntarily agree to assume any added risk that may result from the lack of human review of your order in exchange for the reduced commissions and potentially greater convenience of electronic trading.

3. Fast and Volatile Market Conditions:
During periods of heavy trading and/or wide price fluctuations ("Fast Markets"), there may be delays in executing your order or providing trade status reports to you. In addition, if you place a market order in a Fast Market, there may be a significant difference in the quote you receive prior to or at the time you place the order and the execution price you receive.

If the Electronic Services are available, and you decide to place an order in fast or volatile market conditions, you agree to accept full responsibility for that order. If Schwab believes any particular stock is or may be volatile, Schwab may, but is not obligated, to decline to allow customers to place orders for that stock through the Electronic Services. In addition, Schwab reserves the right, but is not obligated, to prevent any IPO stock from being traded through the Electronic Services. In either of these situations, you or your Investment Manager, if you have one, may be required to contact a Schwab representative to assist you with transactions in these stocks. Schwab is not liable to you for any losses, lost opportunities or increased commissions that may result from you being unable to place orders for these stocks through the Electronic Services.

4. Financial Market Information; No Warranty:
Financial Information. Schwab's Electronic Services make available certain financial market data, quotes, news, research and opinions (including Research Reports, as defined below) or other financial information (collectively "Information") that has been independently obtained by certain financial market information services, financial publishers, various securities markets including stock exchanges and their affiliates, investment bankers and other providers (collectively the "Information Providers") or has been obtained by Schwab. Schwab does not guarantee or certify the accuracy, completeness, timeliness or correct sequencing of the Information made available through Schwab, the Information Providers or any other third party transmitting the Information (the "Information Transmitters"). You agree that neither Schwab, the Information Providers nor the Information Transmitters shall be liable in any way for the accuracy, completeness, timeliness or correct sequencing of the Information, or for any decision made or action taken by you relying upon the Information. You further agree that neither Schwab, the Information Providers nor the Information Transmitters will be liable in any way for the interruption of any data, Information or other aspect of Schwab's Electronic Services. You understand that none of the Information (including Research Reports) available through Schwab's Electronic Services constitutes a recommendation or solicitation that you should purchase or sell any particular security.

Research Reports. Schwab's Electronic Services make available analyst research and opinions ("Research Reports") that may be prepared by Schwab or one of its affiliates, or by various third party investment bankers or other entities providing analysis, research and opinions ("Third Party Research Providers"). Schwab does not endorse or approve Research Reports prepared by Third Party Research Providers and only makes such Research Reports available to you as a service and convenience. Schwab and the Third Party Research Providers do not (1) guarantee the accuracy, timeliness, completeness or correct sequencing of the Research Reports, or (2) warrant any results from your use of the Research Reports. The Research Reports have been prepared as of the date indicated and may become unreliable for various reasons including, for example, changes in market or economic circumstances. Schwab and each Research Provider is not obligated to update any information or opinions contained in any Research Report or to continue to offer Information or Research Reports regarding any company or security. You acknowledge that recommendations in the Research Reports to buy, sell, hold, or otherwise consider particular securities are not, and should not be construed as, recommendations or advice to you designed to meet your particular objectives or financial situation. From time to time, Schwab and/or a Research Provider may be unable to provide Research Reports with respect to certain companies with which Schwab and/or a Research Provider, or their respective affiliates have certain business relationships.

Disclaimer of Warranties. THERE IS NO WARRANTY OF MERCHANTABILITY, NO WARRANTY OF FITNESS FOR A PARTICULAR USE AND NO WARRANTY OF NON-INFRINGEMENT. THERE IS NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, REGARDING THE INFORMATION, INCLUDING RESEARCH REPORTS, OR ANY ASPECT OF
SCHWAB'S ELECTRONIC SERVICES (INCLUDING BUT NOT LIMITED TO INFORMATION ACCESS AND ORDER PLACEMENT OR EXECUTION).

Agreement Not To Contact Analyst. You agree not to contact any individual or analyst who is an author of, or who is named on, any Research Report, or any representative of any Information or Research Provider.

Arbitration. You agree that any controversy which may arise between yourself and any third party Information or Research Provider and any of their officers, directors, affiliates and employees, shall be resolved in arbitration in accordance with the terms and conditions of the arbitration agreement(s) entered into between you and Schwab at the time you opened your Schwab account(s), and as amended from time to time.

Disclosure of Potential Relationships. Schwab and/or its employees or directors as well as consultants to Schwab may have or may have clients with positions in securities or companies referenced in Information, including Research Reports, and may, as principal or agent, buy from or sell to customers. From time to time, Schwab may perform investment banking or other services for, or solicit such services from, companies mentioned in Information.

Securities Professionals May Not Use Research Reports In Their Business. If you are a securities broker, dealer or investment banker, by requesting or receiving any Research Reports, you agree not to use any such Research Reports for any purpose related to your business.

5. Limitations of Liability:
Limitation of Damages. SCHWAB, THE INFORMATION PROVIDERS, INFORMATION TRANSMITTERS, THIRD PARTY RESEARCH PROVIDERS, AND ANY OTHER PERSON INVOLVED IN TRANSMITTING INFORMATION WILL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES EVEN IF YOU ADVISE THEM OF THE POSSIBILITY OF SUCH DAMAGES. THIS INCLUDES, BUT IS NOT LIMITED TO, CLAIMS FOR LOST PROFITS, TRADING LOSSES AND DAMAGES THAT MAY RESULT FROM THE USE, INCONVENIENCE, DELAY OR LOSS OF USE OF THE INFORMATION OR FOR OMISSIONS OR INACCURACIES IN THE INFORMATION. AS A CONDITION TO ACCESSING OR RECEIVING THE INFORMATION, YOU EXPRESSLY AGREE TO WAIVE ANY CLAIM YOU MAY HAVE AGAINST SCHWAB, ANY INFORMATION PROVIDER, RESEARCH PROVIDER, OR ANY OTHER PERSONS INVOLVED IN TRANSMITTING ANY INFORMATION SCHWAB MAKES AVAILABLE TO YOU.

BY ACCESSING OR RECEIVING INFORMATION, YOU AGREE THAT THE LIABILITY OF SCHWAB, THE INFORMATION PROVIDERS, THE THIRD PARTY RESEARCH PROVIDERS, OR ANY OTHER PERSONS INVOLVED IN TRANSMITTING INFORMATION ARISING OUT OF ANY LEGAL CLAIM (WHETHER IN CONTRACT, TORT OR OTHERWISE) IN ANY WAY CONNECTED WITH SCHWAB'S ELECTRONIC SERVICES OR INFORMATION WILL NOT EXCEED THE AMOUNT YOU ORIGINALLY PAID FOR THE ELECTRONIC SERVICES RELATED TO YOUR CLAIM.

SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG IMPLIED WARRANTIES LAST, THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR THE EXCLUSION OF CERTAIN IMPLIED WARRANTIES, SO THAT THESE DISCLAIMERS AND LIMITATIONS MAY NOT APPLY TO YOU. THIS AGREEMENT GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.

No Liability for Events Outside of Entities' Direct Control. Schwab, the Information Providers, Information Transmitters, Third Party Research Providers, and any other person involved in transmitting Information will not be liable for any loss that results from a cause over which that entity does not have direct control. Such causes include, but are not limited to, (1) the failure of
6. Consent to E-Mail Communications and Opting Out:
By entering into a customer account agreement with Schwab or by subscribing to a Schwab Electronic Service, you are consenting to the receipt of electronic mail ("e-mail") from us. We may send you e-mails about services and products we believe may be of interest to you. You may opt-out of future e-mails about products or services by following instructions in our privacy policy, on our Web site, or contained in an e-mail that you receive from us. We reserve the right, however, to e-mail you important information relating to your account, including regulatory communications.

7. Use of Proprietary Information:
The Information provided is the property of Schwab, the Information or Third Party Research Providers or their licensers and is protected by applicable copyright law. You agree not to reproduce, retransmit, disseminate, sell, distribute, publish, broadcast, circulate or commercially exploit the Information in any manner without the express written consent of Schwab, the Information or Third Party Research Providers or any other person with the authority to give such consent. You agree that you will not use the Information for any unlawful purpose. You further agree to comply with all reasonable written requests from Schwab intended to protect the Information and Third Party Research Providers' and Schwab's respective rights in the Information and Electronic Services.

8. Use of Quotes:
You agree to use the quotes only for your individual use in your business. You will not furnish the quotes to any person or entity other than an officer, partner or employee of your business. If you are a securities professional, such as an investment advisor, you may occasionally furnish limited amounts of quotes to your customers and clients, but solely in the regular course of your securities business. If you furnish quotes to your customers and clients who are not on your premises, you may do so solely (i) in written advertisements, educational material, sales literature or similar written communications or (ii) during telephonic voice communication not entailing the use of computerized voice synthesisization or similar technology. You shall not permit any customer or client to take physical possession of "your equipment" (i.e., the equipment that you use to receive, display or otherwise use quotes). You shall abide by any additional limitations on use of quotes that Schwab may specify in the future.

9. Order Change or Cancellation Requests:
You acknowledge that it may not be possible to cancel a market or limit order once you have placed it, and you agree to exercise caution before placing all orders. Any attempt you make to cancel an order is simply a request to cancel. Schwab processes your requests to change or cancel an order on a best-efforts basis only and will not be liable to you if Schwab is unable to change or cancel your order. Market orders (including marketable limit orders), in particular, are subject to immediate execution and as a general rule cannot be canceled once entered during market hours and shortly before market opening. If you wish to try to change or cancel your market order, you agree to call a Schwab representative to assist you. Attempting to cancel and replace or change a market order through the Electronic Services can result in the execution of duplicate orders, which ultimately are your responsibility. If an order cannot be canceled or changed, you agree that you are bound by the results of the original order you placed.
10. No Legal or Tax Advice:
You acknowledge that Schwab does not give legal advice or tax advice. However, we may provide you with general tax and estate planning information and principles. You agree that these principles do not apply to your specific circumstances or take into account your comprehensive tax or estate planning situation. For that type of assistance, you agree to consult your own tax or legal advisor.

11. Investment Advice:
You agree and acknowledge that when you use the Electronic Services, you, or you and your investment manager if you have one, are responsible for determining the nature, potential value and suitability for you of any particular investment strategy, transaction (including futures transactions) or security (including equities and options). Schwab has no responsibility under any circumstance for any such determination unless Schwab gives advice directly to you that is clearly identified as a Schwab recommendation for you to enter into a particular transaction or transactions or to buy or sell a particular security or securities. You agree that any such Schwab recommendation will remain in effect only for as long as we tell you that it will remain in effect at the time we make the recommendation.

Orders May Not Be Manually Reviewed. You understand and acknowledge that when you place orders using Schwab's Electronic Services, those orders may be sent directly to an exchange without being viewed by an individual Schwab representative. You acknowledge that you bear the entire risk and agree to accept full responsibility for the orders you place. You further agree to release Schwab from any liability for executing the orders you place using Schwab's Electronic Services.

12. Access, Passwords and Security:
You will be responsible for the confidentiality and use of your access number(s), password(s) and account number(s). You agree not to hold Schwab liable for any damages of any kind resulting from your decision to disclose your access number(s), password(s), or account number(s) to any third party, including but not limited to entities that aggregate account information or Web site content, or persons who are or claim to be acting as your agent, proxy, or investment manager. You will be responsible for all orders entered through and under your access number(s), password(s) and account number(s), and any orders so received by Schwab will be deemed to have been received from you. All orders shall be deemed to be made at the time received by Schwab and in the form received. You agree immediately to notify Schwab if you become aware of:

Any loss or theft of your access number(s), password(s) and/or account number(s); or
Any unauthorized use of any of your access number(s), password(s) and/or account number(s), or of the Electronic Services or any Information; or
Any failure by you to receive a message that an order initiated by you through the Electronic Services has been received and/or executed through the Electronic Services; or
Any failure by you to receive accurate written confirmation of an order or its execution within five (5) business days after entering the order through the Electronic Services; or
Any receipt of confirmation of an order that you did not place, or any similarly inaccurate or conflicting report or Information.

13. Data Transmission:
You acknowledge that data, including e-mail, electronic communications and personal financial data, may be accessed by unauthorized third parties when communicated between you and Schwab, Information Providers or Information Transmitters, using the Internet, other network communications facilities, telephone or any other electronic means. You agree to use software produced by third parties, including, but not limited to, "browser" software that supports a data security protocol compatible with the protocol used by Schwab. Until notified otherwise by Schwab, you agree to use software that supports the Secure Socket Layer (SSL) protocol or other protocols accepted by Schwab and follow Schwab's log-on procedures for Electronic
Services that support such protocols. You acknowledge that Schwab is not responsible for notifying you of any upgrades, fixes or enhancements to any such software or for any compromise of data transmitted across computer networks or telecommunications facilities, including, but not limited to, the Internet.

14. Use of Software, Programs, Applications or Other Devices to Access Electronic Services:
With the exception of applications commonly known as Web Browser software, or other applications formally approved by Schwab in writing, you agree not to use any software, program, application or any other device to access or log on to Schwab's computer systems, Web site or proprietary software or to automate the process of obtaining, downloading, transferring or transmitting any content, information or quotes to or from Schwab's computer systems, Web site or proprietary software.

15. Subscription, Service, Use Fees:
You agree to pay all subscription, service and use fees, if any, that you are charged by Schwab or its designee for Schwab's Electronic Services. These fees may include without limitation, any Research Report fees. You agree that these fees may be changed without notice. Schwab reserves the right to enter into fee sharing arrangements with applicable Information Providers, Information Transmitters, and Third Party Research Providers.

Payment of Fees. Upon requesting a Research Report, you shall instruct Schwab or its designee to charge the related fee, if any, to a designated VISA or MasterCard. If appropriate, you may also elect to charge the fees to your account. You agree to pay all costs (including attorneys' fees), if any, incurred by Schwab in collecting overdue fees from you. You also agree to pay all federal, state and local taxes resulting from your use or receipt of the Research Reports. You agree to grant Schwab a continuing security interest in the assets in your Schwab brokerage account(s), if any, to secure the timely payment of all fees owed by you for the Research Reports as well as any other amounts owing under this Agreement or your other Agreements with Schwab. If Schwab charges you a fee for Research Reports, Schwab may assign this Agreement only with your consent, to the extent allowed by applicable law.

16. Account Restrictions:
If there is a restriction on your account(s) at Schwab, your use of the Electronic Services' trading functions will be so restricted with respect to such account(s). Further, Schwab reserves the right in its sole discretion to require a cash or equity deposit at any time and to determine the adequacy of any such deposit prior to the execution of any transaction through the Electronic Services. Schwab will not be responsible for any delay or failure to provide the Electronic Services, including the execution of any securities order, in the event there is a restriction on your account, you lack sufficient funds in your account or you delay or fail to make a required cash or equity deposit.

17. Indemnification:
You agree to defend, indemnify and hold Schwab, the Information Providers and the Information Transmitters harmless from and against any and all claims, losses, liability costs and expenses (including but not limited to attorneys' fees) arising from your violation of this Agreement, state or federal securities laws or regulations, or any third party's rights, including but not limited to infringement of any copyright, violation of any proprietary right and invasion of any privacy rights. This obligation will survive the termination of this Agreement.

18. Our Ability to Terminate Electronic Services:
Schwab reserves the right to terminate your access to its Electronic Services or any portion of them (including without limitation, the Information (including Research Reports)) in its sole discretion, without notice and without limitation, for any reason whatsoever. Schwab may terminate your access to its Electronic Services for reasons including, but not limited to, the unauthorized use of your account access information, breach of this Agreement, discontinuance
of Schwab’s access to any Information or any other data from any Information Provider or Research Provider or termination of one or more agreements between Schwab and Information Providers, Third Party Research Providers or Information Transmitters. Schwab, the Information Providers, the Third Party Research Providers and the Information Transmitters shall have no liability to you for terminating your access to Schwab’s Electronic Services; provided, however, that if Schwab’s termination is without cause, Schwab will refund the pro rata portion of any fee you may have paid for the portion of the Information and/or Electronic Services not furnished to you as of the date of termination.

19. Electronic Communications:
The Electronic Services you access by computer provide you with the capability to send electronic communications, such as e-mail, directly to Schwab and interact within applicable areas of the Electronic Services. You agree to the following terms with respect to your use of electronic communications through the Electronic Services:

- You will not transmit securities trade orders to Schwab using electronic communications except through those electronic features designated by Schwab for the express purpose of placing trade orders. You acknowledge that Schwab will not act upon trade orders transmitted through electronic communications other than orders you transmit through designated trade order features;
- Schwab shall be entitled, but is not obligated, to review or retain your electronic communications for, among other reasons, monitoring the quality of service you receive, your compliance with this Agreement and the security of the Electronic Services. Schwab is entitled to disclose your electronic communications to the same extent it may disclose other information about you or your account(s) as provided elsewhere in your account agreement(s). In no event will Schwab be liable for any costs, damages, expenses or any other liabilities incurred by you as a result of such activities by Schwab;
- You will not use any electronic communication feature of the Electronic Services for any purpose that is unlawful, abusive, harassing, libelous, defamatory, obscene or threatening. You will not use the Electronic Services to solicit Schwab customers or others or participate in the solicitation of Schwab customers or others for any purpose;
- You will not upload, post, reproduce or distribute any information, software or other material protected by copyright or any other intellectual property right (as well as rights of publicity and privacy) without first obtaining the permission of the owner of such rights;
- You will not in any way express or imply that the opinions in your electronic communications are endorsed by Schwab without the prior written consent of Schwab;
- If you use the Electronic Services that you access by computer, you agree to provide Schwab with your e-mail address, promptly provide Schwab with any changes to your e-mail address and accept electronic communications from Schwab at the e-mail address you specify; and
- You agree to be bound by any affirmance, assent or agreement you transmit through the Electronic Services you access by computer, including but not limited to any consent you give to receive communications from us solely through electronic transmission. You agree that, when in the future you click on an "I agree", "I consent" or other similarly worded “button” or entry field with your mouse, keystroke or other computer device, your agreement or consent will be legally binding and enforceable and the legal equivalent of your handwritten signature.

20. General:
You acknowledge that, in providing you with the Electronic Services, Schwab has relied upon your agreement to be bound by the terms of this Agreement and any user or license agreement(s) related to or accompanying Electronic Services-related software. You further acknowledge that you have read, understood and agreed to be bound by the terms of (i) the user license agreement of any Electronic Services-related software, and (ii) the terms of Schwab's
brokerage account agreement(s) and any other agreement with Schwab that applies to your account(s), all as currently in effect and amended from time to time.

22. Governing Law:
This Agreement, and all future agreements you shall enter into with Schwab, unless otherwise indicated on such other agreement, shall be governed by the law of the state of California, without regard to conflicts of law principles thereof. This is the case regardless of whether you reside or transact business with Schwab in California or elsewhere, except that arbitration provisions shall be governed by the Federal Arbitration Act.