

**OPTIONS PRICE REPORTING AUTHORITY
FEE SCHEDULE**

Description	Basic Service ¹
<p><u>Professional Subscriber Device-Based Fees</u> (<i>Monthly fee applicable to persons that enter into Professional Subscriber Agreements directly with OPRA</i>): These fees are subject to written policies, which are available at www.opraplan.com.^{2,3,4}</p>	<p>\$30.50 per display device commencing January 1, 2017</p> <p>\$31.50 per display device commencing January 1, 2018</p>
<p><u>Nonprofessional Subscriber Fees</u>: Monthly fees payable by every vendor that furnishes OPRA Data to nonprofessional subscribers (other than nonprofessional subscribers in respect of whom a vendor elects to pay usage-based vendor fees).</p>	<p>Up to 75,000: \$1.25 per nonprofessional subscriber (“nonpro”)</p> <p>75,001-150,000: \$1.15 per nonpro</p> <p>150,001-250,000: \$1.00 per nonpro</p> <p>250,001-500,000: \$0.75 per nonpro</p> <p>500,001 +: \$0.60 per nonpro</p>
<p><u>Usage-based Vendor Fee</u> (<i>Applicable in respect of professional subscribers who enter into Subscriber Agreements with Vendors in place of Professional Subscriber Agreements with OPRA, and in respect of nonprofessional subscribers to Basic Service in place of flat monthly Nonprofessional Subscriber Fee</i>): Monthly fee payable in arrears by a vendor with respect to the use of OPRA Data by persons that enter into Subscriber Agreements with vendors. Usage-based vendor fees apply to each “quote packet” or, if elected in writing by the vendor with respect to the Basic Service, to each “options chain.”⁵ All inquiries are counted for purposes of calculating usage-based fees, except that requests for “delayed” and “historical” OPRA Data are not counted.⁶</p>	<p>\$0.0075 per “quote packet” or \$0.03 per “options chain”, subject to a stated maximum amount per month⁷</p>
<p><u>Redistribution Fee</u>: Monthly fee payable by every vendor that redistributes OPRA Data to any person, whether on a current or delayed basis, except that this fee does not apply to a Vendor whose redistribution of OPRA Data is limited solely to “historical” OPRA Data.</p>	<p>\$1,500; \$650 (Query service only)⁸</p>
<p><u>Subscriber Indirect Access Fee</u>: A monthly fee payable by every professional subscriber that receives indirect access to OPRA Data via a data feed transmission from an OPRA vendor. This fee shall not apply to a subscriber (i) that receives a data feed transmission on a single, stand-alone computer for the sole purpose of providing a single-screen display of OPRA Data for the subscriber's internal use, (ii) whose access and entitlement to OPRA Data received via a data feed transmission is controlled by an authorized control service provider or by the vendor furnishing the data feed transmission, or (iii) that receives a data feed transmission solely for any Non-Display Use.</p>	<p>\$600</p>

<p><u>Direct Access Fee:</u> Monthly fee payable by every vendor and professional subscriber that has been authorized by OPRA to receive direct access to OPRA Data from OPRA’s processor.⁹</p>	<p>\$1,000</p>
<p><u>Monthly Non-Display Use Fees</u>¹⁰:</p> <p>Category 1 Non-Display Use:</p> <p>Category 2 Non-Display Use:</p> <p>Category 3 Non-Display Use:</p>	<p>\$ 2000 per Enterprise¹¹</p> <p>\$ 2000 per Enterprise¹¹</p> <p>\$ 2000 per Platform¹²</p>
<p><u>Voice-Synthesized Market Data Service Fee:</u> Monthly fee payable in arrears by every vendor or professional subscriber that offers a voice-synthesized market data service. (To offer such a service, a professional subscriber must enter into a Voice-Synthesized Market Data Service Rider to its Professional Subscriber Agreement.) The fee is based on the number of active simultaneously accessible ports of the voice-synthesized computer facility of the vendor or professional subscriber through which the service is furnished. Alternatively, a vendor (but not a professional subscriber) may elect in writing to pay a usage-based fee for OPRA Data accessed over vendor’s voice-synthesized market data service as an alternative to the port-based fee. All inquiries are counted for purposes of calculating usage-based fees, except that requests for “delayed” and “historical” OPRA Data are not counted.</p>	<p>Port-based fee, same as device-based Professional Subscriber Fee treating each port as one device; or usage-based fee at a rate of \$0.005 per “quote packet” or \$0.02 per “options chain”.</p>
<p><u>Control Service Fee:</u> A monthly fee payable by every authorized control service provider that offers a market information electronic data control service to OPRA subscribers and in connection therewith has entered into a Data Control Service Agreement with OPRA.</p>	<p>\$2,800</p>
<p><u>Television Display Fee:</u> A monthly fee payable by every Vendor that has entered into a Television Dissemination Rider with OPRA.</p>	<p>\$0.50 per 1,000 households reached¹³</p>
<p><u>Hosted Solution Fee:</u> Monthly fee payable by each Vendor with respect to Hosted Solutions that it administers on behalf of third parties. (The term “Hosted Solution” is defined in OPRA’s document entitled “Policy with respect to Hosted Solutions.”) The Current Data “Enterprise” alternative entitles the Vendor to provide to third parties an unlimited number of Hosted Solutions disseminating current and/or delayed OPRA Data; the Delayed Data “Enterprise” alternative entitles the Vendor to provide to third parties an unlimited number of Hosted Solutions disseminating delayed OPRA Data.</p>	<ul style="list-style-type: none"> • Current Data: \$100 per Hosted Solution or \$10,000 Enterprise • Delayed Data: \$50 per Hosted Solution or \$5000 Enterprise

Direct Access Connectivity Fees

“Direct access” to OPRA Data is defined as receiving OPRA Data through a connection to a port on the “NMS Network,” which is provided through either a 10 or 40 Gb access port in the data center operated by the Securities Industry Automation Corporation (“SIAC”) and its affiliates, located in Mahwah, New Jersey (the “Mahwah Data Center”). The NMS Network is a dedicated, low-latency network for OPRA Data (and for the data of two other national market system data feeds, the Consolidated Trade Association and the Consolidated Quotation feeds) that exists only within the Mahwah Data Center.

Direct access connections to the NMS Network are provided at no additional charge when subscribers purchase 10 Gb or 40 Gb connections on one of the two local area networks located in the Mahwah Data Center (the Liquidity Center Network (“LCN”) or the IP Network). A direct access connection also can be obtained using a telecommunication circuit (including via third-party providers) accessing the subscriber’s port on the NMS Network through the meet me room in the Mahwah Data Center. To obtain an NMS Network port, a subscriber must enter into a contract with an affiliate of SIAC, NYSE Technologies Connectivity, Inc., and the port is then provided by another affiliate of SIAC, the ICE Global Network, which also maintains the NMS Network.

The connectivity fees associated with obtaining direct access to OPRA Data through a port on the NMS Network are listed in the fee schedules of the five NYSE-affiliated equities exchanges (e.g., The New York Stock Exchange, Inc., NYSE Arca, Inc., NYSE American LLC, NYSE National, Inc., and NYSE Texas Inc.) and have been approved by the U.S. Securities and Exchange Commission. Those fees currently are as follows:

Type of Service	Description	Connectivity Fee
IP Network and NMS Network Access	10 Gb IP Network Circuit and 10 Gb NMS Network Circuit	<p>\$10,000 initial charge per connection to both the IP Network and NMS Network plus \$12,000 monthly charge per connection to both the IP Network and NMS Network.</p> <p>For purposes of these charges, the IP Network Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.</p>
IP Network and NMS Network Access	40 Gb IP Network Circuit and 40 Gb NMS Network Circuit	<p>\$10,000 initial charge per connection to both the IP Network and NMS Network plus \$20,000 monthly charge per connection to both the IP Network and NMS Network.</p> <p>For purposes of these charges, the IP Network Circuit and NMS Network Circuit are together considered to be one</p>

Type of Service	Description	Connectivity Fee
		connection, and so Users are not subject to two initial or two monthly charges.
LCN and NMS Network Access	10 Gb LX LCN Circuit and 10 Gb NMS Network Circuit	<p>\$15,000 initial charge per connection to both the LCN and NMS Network plus \$24,000 monthly charge per connection to both the LCN and NMS Network.</p> <p>For purposes of these charges, the LCN Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.</p>
LCN and NMS Network Access	40 Gb LCN Circuit and 40 Gb NMS Network Circuit	<p>\$15,000 initial charge per connection to both the LCN and NMS Network plus \$24,000 monthly charge per connection to both the LCN and NMS Network.</p> <p>For purposes of these charges, the LCN Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.</p>

Although OPRA charges a monthly “Direct Access Fee” as set forth in this Fee Schedule, OPRA does not directly charge any of the Direct Access Connectivity Fees set forth in the table directly above, collect any of those Direct Access Connectivity Fees, or receive any portion of those Direct Access Connectivity Fees.

¹ OPRA’s Basic Service includes all last sale and quotation information pertaining to equity options and index options, including foreign currency index options.

² Copies of these Policies will be mailed to any Subscriber upon request. Among other things, these Policies describe the circumstances in which a Professional Subscriber may count “User IDs” that are capable of receiving OPRA information as a surrogate for counting “devices,” that display OPRA information, and pay OPRA’s Professional Subscriber Fees based on the number of its User IDs rather than on the number of its devices.

³ OPRA offers new Professional Subscribers the opportunity to receive OPRA’s Basic Service on a “free trial” basis – that is, without payment of Professional Subscriber Device-Based Fees - for the first 30 days. In order to qualify for the 30-day free trial, a new Subscriber must sign a Professional Subscriber Agreement and indicate on the Agreement that it wishes to subscribe for a 30-day free trial period. Unless the Subscriber notifies OPRA in writing before the end of the 30-day trial period that it wishes to cancel its subscription to OPRA’s Basic Service, the Subscriber will be obligated to pay access fees to OPRA at the device-based rate (or the alternative Enterprise Rate) commencing on the 31st day following the day its subscription to the Basic Service was initiated.

⁴ As an alternative to the Device-Based Professional Subscriber Fee, OPRA’s Enterprise Rate Professional Subscriber Fee is available to those Subscribers that (i) are members or associate members in good standing of one or more of the exchanges that are parties to the OPRA Plan, and (ii) elect to pay Subscriber Fees at the Enterprise Rate by signing the Enterprise Rate Amendment to the Subscriber Agreement. The Enterprise Rate Subscriber Fee in effect commencing January 1, 2017, is a monthly fee of \$30.50 times the number of a Subscriber’s registered representatives based in the United States, its territories and possessions as reported by FINRA, subject to a minimum monthly fee of \$6,100 per subscriber, and commencing January 1, 2018, the monthly fee becomes \$31.50 per registered representative as so reported subject to a minimum monthly fee of \$6,300; in each case subject to adjustment in accordance with the Enterprise Rate Amendment to the Subscriber Agreement. (In reporting the number of its registered representatives, Subscriber need not include persons previously registered as representatives who are at the time of the report legally prohibited from acting as registered representatives (because, for example, their registrations have lapsed, been suspended, or terminated) and who are not so acting.) Payment of the Enterprise Rate Professional Subscriber Fee entitles Subscriber to access OPRA’s Basic Service at any of its locations in the United States, its territories and possessions, except that Subscribers who pay the Enterprise Rate Professional Subscriber Fee on the basis of more than 7,000 registered representatives (i.e., a monthly fee in excess of \$213,500 in 2017 and \$220,500 in 2018) are entitled to access OPRA’s Basic Service at any of their locations worldwide. In addition, payment of the Enterprise Rate Professional Subscriber Fee by a Subscriber allows OPRA’s Basic Service to be made available to independent investment advisers who are under contract with the Subscriber to provide investment advisory services to the Subscriber’s customers. All such investment advisers will be deemed to be registered representatives of the Subscriber for purposes of calculating the Subscriber’s Enterprise Rate Professional Subscriber Fee.

⁵ A “quote packet” consists of any one or more of the following values: last sale, bid/ask, and related market data for a single series of options or a related index; an “options chain” consists of last sale, bid/ask, and related market data for up to all series of put and call options on the same underlying security or index.

⁶ OPRA Data becomes “delayed” after at least 15 minutes have passed since the information was first transmitted by OPRA, OPRA’s processor or an OPRA Participant to vendors. OPRA Data derived from a given trading day of an options market becomes “historical” upon the opening of trading on the next succeeding trading day of that market.

⁷ Usage-based Vendor Fees for Basic Service may not exceed the following maximum monthly amounts: For a professional subscriber, the monthly fee is capped at the highest per-device fee applicable to a professional subscriber times the number of the professional subscriber's authorized user IDs; for a nonprofessional subscriber, the monthly fee is capped at \$1.25.

⁸ A Vendor's Service qualifies for the "Query service only" rate if the Vendor's Service provides access to OPRA Data only on a "query" basis without any auto-refreshing capability and does not redistribute OPRA Data via dedicated lines or to the systems of one or more other Vendors (sometimes referred to as "downstream Vendors") or to one or more Hosted Solutions.

⁹ Direct access to OPRA Data is defined in the Section of this Fee Schedule entitled "Direct Access Connectivity Fees" as receiving OPRA Data through a connection to a port on the NMS Network, which is provided through either a 10 or 40 Gb access port in the data center operated by SIAC and its affiliates, located in Mahwah, New Jersey.

¹⁰ Non-Display Use refers to the accessing, processing or consuming by an OPRA data recipient (either an OPRA vendor or an OPRA professional subscriber that has entered into a Professional Subscriber Agreement directly with OPRA) of OPRA market data, whether delivered directly from OPRA's processor and/or indirectly from an OPRA vendor, for a purpose other than in support of the data recipient's display or further internal or external redistribution of the OPRA data, and whether or not the use of the OPRA data is made on a device that is also displaying the OPRA data. Non-Display Use includes, without limitation, trading (such as in a "black box" or a trading engine that performs automated trading, algorithmic trading or program trading, or generates arbitrage or program trading orders); automated order or quote generation and/or order pegging; price referencing for algorithmic trading; operations control programs; investment analysis; order verification; surveillance programs; risk management; compliance; and portfolio valuation.

OPRA recognizes three categories of Non-Display Use. Category 1 applies when a data recipient's Non-Display Use is on its own behalf. Category 2 applies when a data recipient's Non-Display Use is on behalf of its clients. Category 3 applies when a data recipient's Non-Display Use is for the purpose of internally matching buy and sell orders within the data recipient. Matching buy and sell orders includes matching customer orders on the data recipient's own behalf and/or on behalf of its clients. Category 3 includes, but is not limited to, use in trading platform(s), such as exchanges, alternative trading systems ("ATs"), broker crossing networks, broker crossing systems not filed as ATs, dark pools, multilateral trading facilities, and systematic internalization systems. The Category 1 Non-Display Fee shall not apply in the case of an OPRA data recipient during any complete calendar month during which the data recipient (i) has a single UserID (a single natural person) that uses OPRA data for Non-Display Use for the benefit of that UserID and (ii) is not a broker-dealer and does not place more than 390 orders in listed options per day on average during the calendar month (counting orders for this purpose in accordance with the rules of the OPRA Participant exchanges to which it submits orders during the month) for its own beneficial account(s).

The Non-Display Use charges apply separately for each of the three categories of Non-Display Use. One, two or three categories of Non-Display Use may apply to one organization. Professional Subscriber servers and other devices that are used solely for Non-Display Use are not subject to Professional Subscriber Device-Based Fees, but if a Professional Subscriber uses a server or other device for a Non-Display Use and also to display OPRA data the Professional Subscriber will be subject to the applicable Non-Display Use fees and to the Professional Subscriber Device-Based Fee.

An organization that uses data for Category 3 Non-Display Use must count each “Platform” (this term is defined in footnote 12) that uses data on a non-display basis. For example, an organization that uses OPRA Data for the purposes of operating an ATS and also for operating a broker crossing system not registered as an ATS would be required to pay two Category 3 Non-Display Use fees.

An OPRA data recipient must make a declaration to OPRA of its Non-Display Use of OPRA data upon commencing the Non-Display Use and thereafter upon any change in the recipient’s Non-Display Use. In addition, each OPRA data recipient will be required to make an annual declaration to OPRA of its Non-Display Use of OPRA data. OPRA will not require monthly reporting with respect to Non-Display Use of OPRA data.

¹¹ An “Enterprise” is an OPRA data recipient together with the wholly-owned subsidiaries of the data recipient.

¹² A “Platform” is a platform for internally matching buy and sell orders. Matching buy and sell orders includes matching customer orders on a data recipient’s own behalf and/or on behalf of its clients. The term “Platform” includes, but is not restricted to, exchanges, alternative trading systems (ATSS), broker crossing networks, broker crossing systems not filed as ATSS, dark pools, multilateral trading facilities, and systematic internalization systems.

¹³ The term “households reached” is defined in the Television Dissemination Rider. Prorating of the “per 1,000 households reached” fee (but not the monthly maximum) is permitted if Vendor displays OPRA Data for less than its entire business day, based upon the number of minutes current OPRA Data is displayed by Vendor divided by 390 (or such other number as OPRA reasonably designates from time to time to represent the number of minutes that the U.S. markets are open for trading). Vendor may simulcast over multiple television channels and not be charged more than once for households reached that have access to multiple simulcast channels.