Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”) and Rule 19b-4 thereunder, notice is hereby given that, on May 22, 2020, the NYSE Chicago, Inc. (“NYSE Chicago” or the “Exchange”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend the services available to Users that use co-location services in the Mahwah, New Jersey data center to add the NMS network to connect to the NMS feeds. The proposed rule change is available on the Exchange’s website at www.nyse.com, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places  

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specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. **Self-Regulatory Organization’s Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change**

   1. **Purpose**

   **Overview**

   The Exchange proposes to amend its co-location services to provide Users with an alternate, dedicated network connection to access the NMS feeds (the “NMS network”) for which the Securities Industry Automation Corporation (“SIAC”) is engaged as the securities information processor (“SIP”). The Commission recently approved similar filings by each Affiliate SRO.6

   As described below, today Users can connect to Regulation NMS equities and options

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5 For purposes of the Exchange’s co-location services, a “User” means any market participant that requests to receive co-location services directly from the Exchange. Id. at note 6. As specified in the Fee Schedule of NYSE Chicago (the “Fee Schedule”), a User that incurs co-location fees for a particular co-location service pursuant thereto would not be subject to co-location fees for the same co-location service charged by the Exchange’s affiliates the New York Stock Exchange LLC (“NYSE”), NYSE American LLC (“NYSE American”), NYSE Arca, Inc. (“NYSE Arca”), and NYSE National, Inc. (“NYSE National” and, together, the “Affiliate SROs”). See id. at 58779.

feeds\textsuperscript{7} disseminated by the SIP using either one of two co-location local area networks. Currently, a User would need to purchase a service that includes either a 10 Gigabit (“Gb”) or 40 Gb connection to access a local area network in order to connect to the NMS feeds.\textsuperscript{8} Users do not pay an additional charge to connect to the NMS feeds: it comes with their connection to the local area network.

The Exchange has been authorized to build the NMS network in the Mahwah data center that will only connect to the NMS feeds. The new network will connect to the NMS feeds faster than either of the existing local area networks. Because a User currently needs to purchase a service that includes access to one of the two local area networks in the data center via either a 10 Gb or 40 Gb connection to connect to the NMS feeds, the Exchange proposes to expand that service to include the option to also connect to the NMS network via a same-sized connection at no additional charge. Accordingly, with this proposed rule change, Users will have the option to use the NMS network or either of the existing local area networks to connect to the NMS feeds.

The Exchange is not proposing any changes to its fees.

Because the NMS network has been built and tested and is ready to be implemented, subject to effectiveness of this proposed rule change, the Exchange proposes to implement the NMS network as soon as practicable. The Exchange will announce the implementation date through a customer notice.

\textbf{Background}

The Exchange’s affiliate, SIAC, is engaged as the SIP for three separate Regulation NMS

\textsuperscript{7} The NMS feeds include the Consolidated Tape System and Consolidated Quote System data streams, as well as Options Price Reporting Authority (“OPRA”) feeds.

\textsuperscript{8} Because of the volume of data, a 1 Gb connection is not sufficient to connect to an NMS feed.
plans (collectively, the “NMS Plans”). SIAC operates as the SIP for the NMS Plans in the same data center where the Exchange and its Affiliate SROs operate. In that data center, Users can access SIAC as the SIP over the same network connections through which they access other services. Specifically, a User can access the SIAC SIP environment via either the internet protocol (“IP”) network or the Liquidity Center Network (“LCN”), which are the local area networks in the data center.

The Exchange offers Users connectivity to the SIAC SIP environment at no additional charge when a User purchases access to a 10 Gb or 40 Gb LCN or IP network. In connection with the services available over the local area networks, the SIAC feeds are referred to as the “NMS feeds.” As described in General Note 4 of the Fee Schedule, when a User purchases access to the LCN or IP network, it receives connectivity to certain market data products (the “Included Data Products”) that it selects, subject to technical provisioning requirements and authorization from the provider of the data feed. The NMS feeds are included in the list of the Included Data Products that come with connections to the LCN or IP network. The remaining Included Data Products are proprietary feeds of the Exchange and its Affiliate SROs (together,

\[9\] SIAC has been engaged as the SIP to, among other things, receive, process, validate and disseminate: (1) last-sale price information in Tape A and Tape B-listed securities pursuant to the CTA Plan (“CTA Plan”), which is available here: https://www.nyse.com/publicdocs/ctaplan/notifications/trader-update/CTA%20Plan%20Composite%20as%20of%20July_9_2018.pdf; (2) quotation information in Tape A and B-listed securities pursuant to the CQ Plan (“CQ Plan”), which is available here: https://www.nyse.com/publicdocs/ctaplan/notifications/trader-update/CQ_Plan_Composite_as_of_July_9_2018.pdf; and (3) quotation and last-sale price information in all exchange options trading pursuant to the OPRA Plan (“OPRA Plan”), which is available here: https://uploads-ssl.webflow.com/5ba40927ac854d8c97bc92d7/5bf419a6b7c4f5085340f9af_opra_plan.pdf.

\[10\] See 84 FR 58778, supra note 5, at 58780.

\[11\] The range of LCN and IP network connectivity options, including the bandwidth and latency profile of the applicable networks, are described on the Fee Schedule.
the “NYSE Exchanges”).

A User that purchases access to the LCN or IP network also receives the ability to access the trading and execution systems of the NYSE Exchanges (the “Exchange Systems”) and the trading and execution systems of OTC Global, an alternative trading system (“ATS”), subject, in each case, to authorization by the relevant entity.\(^{12}\)

Accordingly, without paying an additional connectivity fee, a User that purchases access to either the LCN or IP network can use such network to:

1. Access the trading and execution services of five registered exchanges (five equities markets, two options markets, and a fixed income market) and an ATS;
2. Connect to the market data of five registered exchanges (five equities exchanges, two options markets, and a fixed income market); and
3. Connect to the NMS feeds.

A User may connect to the NMS feeds through the IP network or LCN. Until recently the operating committee for the CTA and CQ Plans (“CTA/CQ Plans”) mandated use of the IP network to access the NMS feeds.\(^ {13}\) As a result, all LCN connections to the NMS feeds go through the IP network before reaching the NMS feeds,\(^ {14}\) and so using the LCN to connect to an NMS feed is slower than using the IP network.\(^ {15}\)

\(^{12}\) See id. Information regarding the Included Data Products is currently set forth in the second paragraph of General Note 4.

\(^{13}\) The Operating Committee of the CTA/CQ Plans mandated the use of the IP network to access the NMS feeds because the IP network was built as a secure network designed for resiliency and redundancy.

\(^{14}\) By contrast, the LCN does not connect to the IP network for access to the Exchange Systems or connectivity to the other Included Data Products.

\(^{15}\) A User that uses the LCN to connect to an NMS feed does not need to separately purchase an IP network connection.
Alternate, Dedicated Network Connection for NMS Feeds

As the SIP for the NMS Plans, SIAC continually assesses the services it provides and has been working with the operating committees of the NMS Plans and the industry-based advisory committee to the CTA/CQ Plans to identify potential performance enhancements. Among other initiatives, this group identified that, because the IP network was not designed as a low-latency network, the requirement to use the IP network to access the NMS feeds introduces a layer of latency.

To reduce network latency, the Exchange sought and received approval from the operating committees for the CTA/CQ Plans to build an alternate to the LCN and IP network to connect to the NMS feeds. As approved by the CTA/CQ Plans, the Exchange built the NMS network, a low-latency network in the data center that will provide Users with dedicated access to the NMS feeds.

The Exchange currently anticipates that the low-latency network will have a one-way reduction in latency to access the NMS feeds from the IP network and LCN of over 140 microseconds.

Consistent with the current bandwidth needs to connect to the NMS feeds, connections to the NMS network will be available in 10 Gb and 40 Gb circuits. Because the NMS network will be an alternate network to access the NMS feeds, once it is available, Users would have the

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16 The alternate network to access the NMS feeds will not be available outside of the data center.

17 Because SIAC, as the SIP for the NMS Plans, is also responsible for collecting data from the participants of the CTA/CQ Plans and members of the OPRA Plan, Users that are participants of the applicable NMS Plans could use this alternate network connection for purposes of both transmitting and receiving data. Users that are not participants of the NMS Plans could use this alternate network connection for purposes of receiving data. This alternate network would not be available to connect to the other Included Data Products or to access the Exchange Systems or Global OTC.
choice between continuing to use the LCN or IP network to connect to NMS feeds or switching to the NMS network.

Even though the NMS network will provide access only to the NMS feeds, the Exchange is funding the build of the NMS network and is not being reimbursed for such expenses by either CTA or OPRA. The Exchange’s capital expenditure costs for the build are estimated to be $3.8 million, which includes procurement of new low-latency network switches, network devices, and analytics tools and the one-time operational expenditures to build this new network. In addition to this initial estimated approximately $3.8 million outlay, the Exchange anticipates that the ongoing costs to maintain and operate the NMS network will be approximately $215,000 annually.

Proposed Amendment to Add the NMS Network

The proposed structure for the NMS network has been designed so that the services available in co-location would be expanded so that a User can opt to connect to the NMS network at no additional charge.

To effect the proposed change, the Exchange proposes to amend the services available in co-location to provide that if a User purchases a service that includes a 10 Gb or 40 Gb connection to access either local area network, that access would include a connection to the NMS network of the same size. Although the Exchange is funding and expanding the types of local area network connections that would be available in the data center, the Exchange does not propose to change any of the fees related to purchasing a service that includes a connection to a local area network.

More specifically, the services available in co-location currently include LCN Access, IP Network Access, and Partial Cabinet Solution bundles. In order to implement the proposed
change, the Exchange proposes the following amendments to Exchange Rules that describe the following services in co-location:

- In the column titled “Type of Service,” the Exchange proposes to amend the text describing the 10 Gb and 40 Gb LCN and IP Network Access options to include text referencing the NMS network.

- In the column titled “Description,” the Exchange proposes to amend the descriptions of the 10 Gb LX LCN Circuit, 40 Gb LCN Circuit, Partial Cabinet Solution bundle Option C and Option D, 10 Gb IP Network Circuit and 40 Gb IP Network Circuit to include text referencing the specific NMS Network connection that would be part of the service. In addition, because the descriptions of the LCN and IP network services do not currently reference either “LCN” or “IP Network,” respectively, the Exchange proposes to add text references as applicable.

- Finally, the Exchange proposes to amend text in the column titled “Amount of Charge” to specify that the current initial and monthly recurring charges would not change and that for purposes of such charges, the existing local area network connection and NMS network connection would be together considered one connection. These text changes would make clear that Users would not be subject to two initial or two monthly charges. The Partial Cabinet Solution bundle description already indicates that the charges are “per bundle” and therefore no similar clarifying language is proposed.

The Exchange proposes to set forth these changes as follows (proposed new text italicized and proposed text for deletion in brackets):
<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Description</th>
<th>Amount of Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCN and NMS Network Access</td>
<td>10 Gb LX LCN Circuit and 10 Gb NMS Network Circuit</td>
<td>$15,000 initial charge per connection [initial charge] to both the LCN and NMS Network plus $22,000 monthly charge per connection to both the LCN and NMS Network. 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.</td>
</tr>
<tr>
<td>LCN and NMS Network Access</td>
<td>40 Gb LCN Circuit and 40 Gb NMS Network Circuit</td>
<td>$15,000 initial charge per connection [initial charge] to both the LCN and NMS Network plus $22,000 monthly charge per connection to both the LCN and NMS Network. 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.</td>
</tr>
<tr>
<td>Partial Cabinet Solution bundles</td>
<td>No change</td>
<td>No change</td>
</tr>
<tr>
<td>Note: A User and its Affiliates are limited to one Partial Cabinet Solution bundle at a time. A User and its Affiliates must have an Aggregate Cabinet Footprint</td>
<td>No change</td>
<td></td>
</tr>
<tr>
<td>Option C: 1 kW partial cabinet, 1 LCN connection (10 Gb LX), 1 IP network connection (10 Gb), 2 NMS Network connections (10 Gb each), 2 fiber cross connections and either the Network Time Protocol Feed or Precision Timing Protocol</td>
<td>No change</td>
<td></td>
</tr>
<tr>
<td>Option D: 2 kW partial cabinet, 1 LCN connection (10 Gb LX), 1 IP network connection (10 Gb), 2 NMS Network connections (10 Gb each), 2 fiber cross connections and either the Network Time Protocol Feed or Precision Timing Protocol</td>
<td>No change</td>
<td></td>
</tr>
<tr>
<td>IP Network and NMS Network Access</td>
<td>10 Gb IP Network Circuit and 10 GB NMS Network Circuit</td>
<td>$10,000 initial charge per connection [initial charge] to both the IP Network and NMS Network plus $11,000 monthly charge per connection to both the IP Network and NMS Network. 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.</td>
</tr>
</tbody>
</table>
As noted above, Users that purchase access to the LCN or IP Network currently can use such networks to connect to the NMS feeds. Once the NMS Network is available, Users can continue to use either their existing LCN or IP Network connection or the new NMS network connection to connect to the NMS feeds.

The Exchange proposes to amend the current General Note 4 to describe what a User obtains when it purchases a service that includes access to the LCN, IP network, or NMS Network.

First, the Exchange proposes to split current Note 4 into three separate notes. The first paragraph of current Note 4 would continue to be numbered Note 4, and would specify which trading and execution services a User can access when it purchases a service that includes access to the LCN or IP network, which are not changing. Because the services that a User purchases may include access to the NMS network in addition to access to the LCN or IP network, the Exchange proposes a non-substantive amendment to the first sentence of this note to add the phrase “a service that includes.”
Second, the Exchange proposes that the current second paragraph of Note 4 and following table would be renumbered as Note 5. As the paragraph does currently, Note 5 would specify the Included Data Products that a User can connect to if it purchases a service that includes access to the LCN or IP network. Similar to the proposed amendment to the first sentence of Note 4, the Exchange proposes a non-substantive amendment to add the phrase “a service that includes” to the first sentence of new Note 5. In addition, the Exchange proposes a non-substantive amendment to the table to clarify that the NMS feeds are the CTA, CQ, and OPRA feeds.

Finally, the Exchange proposes new Note 6, which would describe in more detail the NMS network. As proposed, Note 6 would provide that when a User purchases a service that includes access to the NMS Network, upon its request it would receive connectivity to the NMS network and any of the NMS feeds that it selects, subject to any technical provisioning requirements and authorization from the provider of the data feed. Consistent with existing Note 4 (proposed Note 5), Note 6 would provide that market data fees for the NMS feeds would be charged by the provider of the NMS data feed. The proposed note would further state that the NMS Network would provide connectivity to the NMS feeds only.

**Expected Application of the Proposed Change**

The proposed NMS network would be available to all Users that purchase a service that includes a 10 Gb or 40 Gb connection to access either the LCN or IP network, which are the networks currently available to provide connections to the NMS feeds.

**General**

As is the case with all Exchange co-location arrangements, (i) neither a User nor any of the User’s customers would be permitted to submit orders directly to the Exchange unless such
User or customer is a member organization, a Sponsored Participant or an agent thereof (e.g., a service bureau providing order entry services); (ii) use of the co-location services proposed herein would be completely voluntary and available to all Users on a non-discriminatory basis,\(^\text{18}\) and (iii) a User would only incur one charge for the particular co-location service described herein, regardless of whether the User connects only to the Exchange or to the Exchange and one or more of the Affiliate SROs.\(^\text{19}\)

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with Section 6(b) of the Act,\(^\text{20}\) in general, and furthers the objectives of Sections 6(b)(5) of the Act,\(^\text{21}\) in particular, because it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to, and perfect the mechanisms of, a free and open market

\(^{18}\) As is currently the case, Users that receive co-location services from the Exchange will not receive any means of access to the Exchange’s trading and execution systems that is separate from, or superior to, that of other Users. In this regard, all orders sent to the Exchange enter the Exchange’s trading and execution systems through the same order gateway, regardless of whether the sender is co-located in the data center or not. In addition, co-located Users do not receive any market data or data service product that is not available to all Users, although Users that receive co-location services normally would expect reduced latencies in sending orders to, and receiving market data from, the Exchange.


and a national market system and, in general, to protect investors and the public interest and because it is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Exchange believes that the proposed change to include access to the NMS network as part of existing services available in co-location would remove impediments to, and perfect the mechanisms of, a free and open market and a national market system and, in general, protect investors and the public interest because, by offering access to the dedicated, low-latency NMS network, the Exchange will be providing Users with an additional option to connect to the NMS feeds. Until recently, SIAC was required to provide connectivity to the NMS feeds via only the IP network. As recently approved by the operating committees for the CTA/CQ Plans, SIAC is now authorized to offer connectivity to the NMS feeds in the data center via an alternate, dedicated, low-latency NMS network. The proposed NMS network has been designed consistent with this directive and will provide greater choice to Users that are seeking a low-latency network to connect to the NMS feeds. In addition, the proposed rule change is identical to the proposals approved for the Affiliate SROs.\(^{22}\) The proposal therefore would provide market participants the ability to obtain consolidated market data in a more timely manner, which would enhance the utility of this critical component of the national market system for the benefit of market participants and investors that rely upon access to consolidated market data to effectuate trades and otherwise have confidence in the efficiency and integrity of that system.

For these reasons, the Exchange believes that the proposal is consistent with the Act.

B. **Self-Regulatory Organization’s Statement on Burden on Competition**

The Exchange does not believe that the proposed rule change will impose any burden on

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\(^{22}\) See Approval Order, supra note 6.
competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange believes that the proposed rule change would not impose any burden on competition because it is not designed to address any competitive issues. As described above, SIAC is the single plan processor for Tape A and B equities securities and all options securities and does not currently compete with any other providers for these processor services. The proposed rule change would amend the services available in co-location to include the NMS network when a User purchases a 10 Gb or 40 Gb connection to access either local area network service. Accordingly, the proposed rule change would expand the services available in co-location without changing any fees for the existing services, or adding fees for the expanded services. All Users would have access to the NMS network and it would be their choice of whether and at what level to subscribe to such services, including whether to utilize the NMS network connection. Accordingly, the Exchange does not believe that the proposed rule change would place any User at a relative disadvantage compared to other Users.

C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has filed the proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act\(^2\) and Rule 19b-4(f)(6) thereunder.\(^3\) Because the proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative prior to 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of

investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act and Rule 19b-4(f)(6)(iii) thereunder.

A proposed rule change filed under Rule 19b-4(f)(6)\textsuperscript{25} normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b4(f)(6)(iii),\textsuperscript{26} the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has requested the Commission to waive the 30-day operative delay so that the proposal may become operative immediately upon filing. The Exchange believes that such waiver would be consistent with the protection of investors and the public interest because the waiver of the operative delay would allow the Exchange to provide Users with access to the NMS network on the same schedule as the Affiliate SROs, for which the proposed rule change has already been approved in the Approval Order. The Exchange notes that the technology for the NMS network was available in production on May 18, 2020. The Exchange states that waiver of the operative delay would allow the Exchange to implement the NMS network without delay, thus enhancing the performance of the CTA/CQ and OPRA SIPs. For those reasons, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. Accordingly, the Commission waives the 30-day operative delay and designates the proposed rule change operative upon filing.\textsuperscript{27}

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such

\textsuperscript{25} 17 CFR 240.19b-4(f)(6).

\textsuperscript{26} 17 CFR 240.19b-4(f)(6)(iii).

\textsuperscript{27} For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule’s impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).
action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings under Section 19(b)(2)(B)\textsuperscript{28} of the Act to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission’s Internet comment form (http://www.sec.gov/rules/sro.shtml); or

- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-NYSECHX-2020-18 on the subject line.

Paper comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-NYSECHX-2020-18. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s Internet website (http://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those

that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission’s Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-NYSECHX-2020-18 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.29

J. Matthew DeLesDernier,
Assistant Secretary.

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