SCHEDULE NO. 7 TO MASTER AGREEMENT (CW288707)

This Schedule No. 7 ("Schedule"), effective on 1st January 2023 ("Effective <u>Date</u>") is an agreement between JPMorgan Chase Bank, National Association ("<u>JPMC</u>") and Markit On Demand, Inc. fka Wall Street On Demand ("<u>Supplier</u>" or "Markit") and incorporates, by reference, all terms and conditions contained in the Master Agreement (CW288707), dated 6th February 2009 as amended from time to time ("<u>Agreement</u>"). Except as otherwise expressly set forth in this Schedule, the defined terms used in this Schedule shall have the same meanings as the defined terms in the Agreement. In the event of a conflict or ambiguity between the terms and conditions of the Agreement and this Schedule, the terms and conditions of the Agreement shall prevail.

1. Incorporation of Agreement

This Schedule is a separate agreement between Supplier and JPMC and incorporates the terms and conditions of the Agreement. Capitalized terms used but not defined in this Schedule will have the meanings given to them in the Agreement. If a term in this Schedule conflicts with a term in the Agreement, the provisions of the Agreement will prevail unless this Schedule specifically states that the term in the Schedule will prevail. References in this Schedule to Sections and Exhibits will refer to the Sections and Exhibits of this Schedule unless otherwise noted.

2. Schedule Term.

The term of this Schedule will begin on the Effective Date and continue until 1 March 2024, unless earlier terminated in accordance with the terms of the Agreement ("<u>Initial Schedule Term</u>").

Upon the expiration of the Initial Schedule Term, and JPMC's request, this Schedule will renew for successive 12 -month periods (each a "Renewal Schedule Term") unless terminated earlier in accordance with Section 13 Term and Termination of the Agreement. 90 days prior to the expiration of the Initial Schedule Term and any Renewal Schedule Term, Supplier will notify JPMC of the pending term renewal. JPMC will have the right to renew the term of this Schedule by providing Supplier with not less than 30 days' prior notice of its intention to renew. The Initial Schedule Term together with the Renewal Schedule Term(s) shall be referred to as "Schedule Term."

Notwithstanding the above, JPMC shall have the right to Terminate this Schedule for convenience, in whole or in part, at any time upon 30 days written notice to Supplier for its convenience after the completion of the Initial Schedule Term. Upon any termination or expiration of this Schedule, JPMC shall pay all unpaid and outstanding fees for the Services provided up until the date of such termination.

Further notwithstanding anything contained herein, this Schedule shall remain in full force and effect until delivery of any Service by Supplier pursuant to this Schedule including any End of Term Assistance Services.

3. Scope of Work.

Supplier will develop and support APIs for JPMC International Private Banking Online (IPBOL), for use on both web and mobile platforms, as part of the Digital Wealth Management program.

For purposes of this Schedule, "Subscriber" shall mean:

o **JPMC's Internal Technical Users**: Technical Employees or consultants of JPMC or JPMC's Affiliates globally, not considered neither "Professional Users" nor "Non Professional Users", that will be differentiated during development period, where applicable and in accordance with applicable JPMC's Policies, and report said usage accordingly. JPMC shall be responsible for (i) correctly categorizing users, and (ii) notifying Supplier of such users, where required

The following are the platforms and websites from which the components defined herein will be accessed by the JPMC's Subscribers at the outset of this Schedule. Subject to written agreement between the parties, JPMC may add client portals, websites, URLs, etc. that are related to the JPMC Portals set forth below. Additional Fees as set forth in Exhibit C (Fees Exhibit) may apply.

- International Private Bank
 - o IPB aka IPBOL)(ie. www.jpmpb.com and J.P.Morgan Private Bank app)

The above is not intended to be an exhaustive list of websites / client portals alias'/redirects that lead to the websites. JPMC will notify Supplier of any changes to this list when JPMC becomes aware of such changes. There are no restrictions to such changes as long as the aliases/redirects all pertain to the JPMC Portals named above or that are subsequently added during the term as may be agreed by the parties in writing.

JPMC acknowledges that the ability of Supplier to perform Services in the timeframe set forth herein is contingent upon JPMC's provision to Supplier of timely information; responses, and/or feedback. Suppliers' time of performance will be increased, day-for-day to match any delay caused by failure by JPMC to submit information; responses, and/or feedback by the dates set forth in this Schedule. For avoidance of doubt, there will be no extra charges assessed to JPMC for any such delay. For Services performed under this Schedule, time of the essence shall not apply.

- **4.** Description of Services and Deliverables: please refer to Exhibit A for a description of all services and deliverables
- **5.** Development Services. The Supplier shall provide the following Development Services to JPMC:
 - Developing and provisioning custom APIs as described in sections 3.1 of Exhibit A (the DESCRIPTION OF DELIVERABLES EXHIBIT).
 - QA and defect remediation

JPMC and Supplier shall mutually agree upon detailed requirements of the items above and in Exhibit A (the Description of Deliverables Exhibit) in advance of development. These requirements will be documented in Supplier's JIRA as well as email confirmation as required

JPMC and Supplier acknowledge that Deliverables described in sections 3.2 to 3.18 of Exhibit A (the DESCRIPTION OF DELIVERABLES EXHIBIT) are provided to JPMC pursuant to Schedule 2 CW2630787 and agree that in the event Schedule 2 is terminated for any reason prior to this Schedule Term end date, Supplier will continue to support all Deliverables which have met completion criteria for the project (as defined in Section 6 below), at the time of termination of Schedule 2 for the benefit of JPMC as provided in this Schedule.

- **6.** Administrative and Project Management Services. The Supplier shall provide the following Administrative and Project Management Services to JPMC:
 - Services to be performed:
 - Project roadmap management in alignment with JPMC scheduled releases; the parties shall mutually agree upon release schedules during the development phase of the Deliverables
 - o Weekly checkpoints with JPMC design, architect, developer, and product teams
 - The manner in which the services will be performed:
 - Supplier will leverage its JIRA for project tracking all work items, change controls, QA testing, and defect logging; JPMC will be provided access.
 - Completion criteria for the project:
 - O Deliverables are delivered, accepted by JPMC in accordance with Section 5 Acceptance below and as detailed in Exhibit A (the Description of Deliverables Exhibit) and implemented in accordance with JPMC requirements defined in the Agreement and this Schedule, and released into production environment(s)
- 7. Hosting and Support Services. The Supplier shall provide the following Hosting and Support Services to JPMC:
 - Network connectivity and authentication
 - Encrypted and tokenized data transfer
 - O Authentication will be facilitated through either Oauth client credentials grant or JWT extension via browser cookie using TP-PSaaS and API calls from JPMC server side proxy. User access token expiry will be set at 10 minutes. The following endpoints and JPM app names will be utilized for APIs in both Production (Prod) and Pre-Production (QA) environments:
 - API Prod: Single domain name to be confirmed by JPMC and agreed with Supplier in writing (including email) point to api.markitdigital.com
 - API QA: Single domain name to be confirmed by JPMC and agreed with Supplier in writing (including email) to point qa-api.markitdigital.com
 - O Supplier will create Client IDs for the following apps:

App Name	Description	Auth type	Token
IPB_MW*	API connectivity for Digital Middleware	Client creds	expiry period to be agreed upon by JPMC and Supplier in writing (including email)
IPB_UI_NEWS IPB_UI_RESEARCH*	Web components for retail web	JWT	expiry period to be agreed upon by JPMC and Supplier in writing (including email)

^{*}App name is subject to change as agreed between parties in writing, including email

- Performance testing
- Dynamic security and penetration testing ensure that industry standard best practices are in place for all policies and procedures related to data security (encryption, etc). Supplier will conduct annual tests on their own, with 20 business day's notification in advance by JPMC,

following OWASP Top 10 guidelines, and send JPMC the results on all hosted components. Supplier will also be subject to periodic scans initiated by JPMC (currently annual, but may change to semi-annual at JPMC's if mutually agreed by JPMC and Supplier). Upon the identification of a security incident by Supplier or JPMC as a result of a security test or otherwise in the normal course of business, and according to the definition in Supplier's incident management policy, Supplier shall remediate the identified incident as per the SLAs identified in Section 10 of Exhibit B (the SLA Exhibit).

8. Deliverables. The Supplier shall provide the following Deliverables to JPMC:

Supplier will provide the Deliverables set forth in Exhibit A (the Description of Deliverables Exhibit). All Deliverables are deemed Developed Works.

9. Enhancements.

JPMC is entitled to an enhancement budget equal to twenty -eight (28) hours per month commencing on Acceptance of Deliverables by JPMC. Such enhancements to the Deliverables which may include design changes, addition of new features, or integration of new data (the "Enhancement Budget"). The Enhancement Budget shall be accrued on a rolling 12 month basis, and if unused it shall lapse. For the avoidance of doubt, JPMC may apply Enhancement Budget toward any of the Deliverables.

Upon 60 days written request from JPMC, the Supplier will reduce the Enhancement Budget, and ongoing fees defined in Exhibit C (Fee Exhibit) shall be reduced based on the rate above. Such changes shall be documented in an amendment to this Schedule.

10. Bug Fixes and Material Changes

Supplier will not charge any additional fees for work done to address any material defects in the Deliverables so it conforms to the original requirements set out in this Schedule and its functional documentation ("Bug Fixes") to the extent that supplier is hosting the Deliverables. Supplier will make any changes beyond Bug Fixes and if applicable, changes covered by the Enhancement Budget, at the rate of \$175 an hour. Should JPMC request Supplier to perform additional work, the parties will enter a separate Schedule.

11. Acceptance

Acceptance Criteria. In addition to being in Compliance and in line with the Criteria set in Section 4 Testing, Correction and Acceptance of the Agreement, the Deliverables must meet the following criteria as a condition of Acceptance:

As per Exhibit A (the Description of Deliverables Exhibit).

12. Service Levels.

The Service Levels are set forth in Exhibit B (the Service Level Agreement ("SLA") Exhibit).

13. Third Party Content

In order to receive third-party IP data as part of the Services, JPMC may be required to obtain a direct

license and /or sub-license from the relevant Third Party Licensor(s) in respect of JPMC's use of that Third Party IP. Supplier can recommend and make introductions to appropriate providers, explain use cases for content and answer questions providers may have, but JPMC will be responsible for all agreements with and payments to such providers, unless the relevant provider requires the payment to be done by Supplier. Notwithstanding the foregoing, certain Third Party Licensors shall also require Supplier to have an appropriate license, and Supplier shall comply with the terms of that license in order to receive the third-party IP data hereunder.

Prior to entitling Third Party Licensor's IP data to JPMC, Supplier must receive written consent for JPMC's scope of use from the applicable the Third Party provider before permission is given to the service. It is the responsibility of Supplier to centrally store any associated consent documents for regulatory and audit purposes. Upon request, Supplier shall provide the documented consent from the Third Party Licensors to JPMC.

When the relevant Third Party Licensor requires the payment to be done by Supplier, Supplier will charge JPMC and pass these fees onto the relevant Third Party Licensor. Supplier will pay necessary market data fees directly to each Third Party Licensor and will treat such fees as pass-through charges to JPMC without any mark-up. In the event there are any additional fees for use of Third Party IP delivery in conjunction with use of the data, JPMC must be notified in writing by Supplier for the additional fees and must receive consent before any fees apply. Supplier will receive written approval from each Third Party Licensor prior and provide evidence to JPMC before to entitling the content to JPMC.

Upon request by JPMC to Supplier and an amendment to this Schedule, Supplier shall be authorized to act as the agent of JPMC for the purchase of certain data and/or content required by JPMC for this project and is authorized to contract on behalf of JPMC for such purchase. JPMC is responsible for all licensing expenses; any amount of sales, use, excise, gross receipts, value added, goods and services, or other taxes; and any other fees applicable to or arising from the provision or the use of such data and/or content, including any additional fees should Third Party Licensor increase their fees at any time. Supplier will notify JPMC in writing of any fee increases within thirty (30) days of receiving such notice from the applicable source. Subject to the licensing terms with the applicable source, JPMC may elect to remove such content upon written notice to Supplier, and JPMC and Supplier shall mutually agree upon a plan and timeline to remove such content.

Supplier email address for Third Party Content related requests: Data.SolutionsPOC@ihsmarkit.com

14. Entitlement System Services, Reporting:

- o **Entitlement**: In addition and subject to all Third Party Licensors approvals, Supplier will also provide, where applicable, data permissioning for data from Exchanges as well as other third party data providers as may be mutually agreed to by the Parties for specific Subscribers as may be requested by JPMC.
- JPMC will provide Supplier with a unique identifier along with parameters indicating to which Market Data Components (and Data Sources) Subscribers are entitled. JPMC's External Client Users shall have entered into a Client Agreement prior to JPMC's provision to Supplier of such unique identifier.
- o Entitlement Report for Market Data Sources delivered via XML API based Delivery. On a monthly basis, Supplier shall use commercially reasonable efforts to provide JPMC with an Entitlement report within ten (10) business days of the calendar month end. Such

Entitlement report will summarize the quote usage by each Subscriber User.

- Third Party Supplier Reporting (including Exchanges): To the extent permitted by the Third Party Licensors, the Supplier will perform quote counting where applicable for Real-Time Exchanges and provide specific usage reports of such quotes ("Quote Count Reports") to each Third Party Licensor. Supplier will be responsible for the accuracy relating to its quote counting and quote consumption reporting mechanisms to each Third Party Licensor, and, to the extent its quote counting and quote consumption reporting is inaccurate and additional fees are assessed, Supplier shall be responsible for such additional fees. Notwithstanding the foregoing or anything contained in this Schedule or the Agreement, in the event a Third Party Licensor determines that Supplier under-reported quotes and such additional fees are assessed by such Third Party Licensor, JPMC shall be responsible for the actual number of quotes consumed by Subscribers; provided however, in such situation, JPMC shall not be responsible for any penalties assessed by a Third Party Licensor in connection with such under-reporting.
- Upon request, Supplier will provide a statistical usage report detailing real-time quote consumption, grouped by Third Party Licensor and User Identifiers, as sent by JPMC with each quote request. Supplier and JPMC will mutually agree with a format of such report.
- Statistical Usage Report: Upon request, Supplier will provide statistical usage reports to JPMC. Such reports are designed to include usage of market data consumption, real-time or delayed, grouped by Third Party Licensors (Exchange, as well as aggregate usage on Supplier hosted components. JPMC may request such monthly usage reports for the prior twelve (12) months.

15. Performance Schedule.

As per Exhibit A (the Description of Deliverables Exhibit).

16. Location of Performance.

The primary location(s) for provision of the Services during the Schedule Term are as follows:

All business may be transacted remotely between parties. Services will be performed and physical meetings may be scheduled on an ad-hoc basis at primary JPMC offices locations as requested by JPMC and agreed to in writing (which includes email) by Supplier.

The Supplier will use JPMC facilities only to provide the Services. All assets provided by JPMC will remain in the JPMC facility where those assets were initially located unless JPMC otherwise agrees in writing. JPMC may relocate any JPMC facility to another geographic location, or direct the Supplier to cease using all or part of a JPMC facility (in which event, JPMC will provide similar space in the same or an alternate JPMC facility). When any JPMC facility is no longer being used or otherwise required for performance of the Services, the Supplier will (a) promptly remove its property from that JPMC facility, and (b) return that JPMC facility to substantially the same condition it was in when the Supplier began to use that facility, subject to reasonable wear and tear.

In addition to the above, Services will be performed by Supplier remotely from the locations below. Supplier will not change any Service Location without JPMC's prior written consent.

5775 Flatirons Parkway, Boulder, CO USA – all services shall be provided from this location

Green Boulevard, Tower C, Plot B-9A, Sector 62, Noida, India – development, QA testing and production support shall be provided from this location

17. Fees

Fees are set forth in Exhibit C (Fee Exhibit)

18. Invoicing

ten Americal JPMC will be invoiced by the Supplier and pay such invoices in accordance with the terms of Section 5 of the Agreement. Invoices shall be sent to the following address:

JPMorgan Chase Bank, National Association 1111 Polaris Parkway Columbus, Delaware OH, 43240 **United States** Attention: JPMC Relationship Manager

19. **Reports**

Upon JPMC's reasonable request, Supplier shall prepare a summary report in the format as agreed between the parties detailing the activities for the time period covered by the request and any open issues to be addressed by the Supplier and JPMC. In addition, the Supplier shall contact JPMC without undue delay by telephone, and if requested confirm by written notice, upon discovery of any problem that will materially delay the provision of any Deliverable.

Relationship Managers. 20.

JPMC Relationship Manager	Supplier Relationship Manager	
Name:	Name:	
Claire Wu	Ryan Welley	
Title:	Title:	
VP, JP Morgan Chase	Regional Head, APAC	
Telephone Number:	Telephone Number:	
W +852-28001458 M: +852-5508-7775	W: +61 8076 1118	
	M: +61 417 004 368	
Email:	Email:	
Claire.wu@jpmorgan.com	ryan.welley@spglobal.com	
Address:	Address:	
77 Hoi Bun Road, Floor 17, Kwun Tong, Hong	2 Bulletin Place Level 13 Sydney, NSW 2000	
Kong,		

JPMC Cybersecurity Contact	Supplier Cybersecurity Contact *	
Name: Scott Dwelley	Name: Tier 1 Support	

Title: Technology Control Officer, Digital	Title:
Work and Mobile Telephone Numbers: +1-603-896-8680 (work) +1-603-759-8458 (mobile)	Work and Mobile Telephone Numbers: +1.303.583.4308
E-mail: scott.w.dwelley@jpmchase.com	E-mail: MOD-NOC@ihsmarkit.com
Address: 4 Northeastern Blvd, Floor 03 Salem, NH, 03079-5916, United States	Address: 5775 Flatirons Parkway Boulder, CO 80301

^{*}At no additional expense to JPMC, the Supplier Cybersecurity Contact must (i) respond to all cyber-related inquiries within 24 hours, 7 days a week, and (ii) be available via mobile and SMS within 24 hours, 7 days a week (with back-up resources when the Supplier Cybersecurity Contact is either unavailable or out of the office ("Back-Up")). Supplier will immediately provide written notice to JPMC when the Supplier Cybersecurity Contact changes or when the Back-Up has the responsibility hereunder.

21. Subcontractor Personnel.

The following Subcontractor Personnel shall provide Services under this Schedule, and shall be regarded as approved by JPMC for the purposes of the Agreement:

NTT Data Services, LLC: Data Center Operations, Infrastructure as a Service (IaaS) Globant: Development, Quality Assurance (QA), Dev/Ops

- 22. Additional terms and conditions applicable to this Schedule only (if any).
 - 1. Section 8.4, of Master Agreement CW280805, dated February 6th, 2009 Compliance with Laws, is hereby amended to append the following additional new paragraph thereof:
 - 2. Pursuant to Section 1.10 Competitive Advantage as a Result of Services of the Amendment 1 to the Agreement, JPMC and Supplier hereby acknowledge and agree that, in the event JPMC deems in its sole discretion that any of Deliverables provide JPMC a competitive advantage, the Supplier will not share or promote and in turn develop or implement any unique functionalities or designs as part of the Deliverables for any competitor of JPMorgan Chase & Co. for a period of twelve months after JPMC Accepts those Developed Works or Services. JPMC shall notify Supplier in writing of specific functionalities and designs it deems competitive prior to Supplier's development of the services; such notification shall include a clear description of specific design/functionality it deems unique. In addition, Supplier can provide similar services to JPMC competitors if Supplier already began working on solution with competitor prior to JPMC providing notice and Supplier can substantiate that solution to the satisfaction of JPMC.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties have caused duly authorised representatives of their respective companies to execute this Schedule on the date or dates set forth below.

JPMorga	an Chase Banky National Association	Markit	t On Domands Inc
Ву	Terry Frozzatt	By	Catherine Allegra
Name	Terry Froggatt	_ Name _	Catherine Allegra
Title	Category Manager	Title	SVP
Date	1/4/2023	_ Date	1/4/2023
	1/4/2023 1/4/2023 1/4/2023	2024, 1.1	A:36 PM America

EXHIBIT A

DESCRIPTION OF DELIVERABLES EXHIBIT

1. Dates of Service.

The Services will start on the **Effective Date**.

2. Services to Be Performed.

Supplier will perform the following Services:

- Project roadmap management in alignment with JPMC sanctioned releases
- Weekly checkpoints with JPMC design, architect, developer, and product teams
- Future amendments to work Schedule 7 and charge under enhancement hours
- Developing and provisioning custom APIs
 - JPMC can leverage the data available in the components via API for integration in other areas of the site and/or mobile app, if needed
 - Out of scope:
 - The following functionality shall be subject to review to determine technical feasibility as designs are provided. If supported by Supplier, these items may incur additional fees and/or extend timelines.
 - API Customization:
 - Examples: inputs or outputs of APIs custom for IPBOL use
- Network connectivity and authentication via OAuth extension grant for JWT or Client credentials grant
- A single standalone test environment for integration, QA and performance testing.
- Production support ticket tracking
- Defect remediation
- Adequate controls to ensure cyber vulnerabilities are identified and remediated. These controls should include but not be limited to: open source scanning, static scanning, dynamic scanning, penetration testing and firewall management;
- Unless otherwise specified below, JPMC will call Supplier's APIs on a request/response basis driven by end user page views of JPMC client portals
- Unless otherwise specified below, a max of 200 symbols can be requested by JPMC in each quote API call
- 3. Deliverables to be Provided and optional additional services or APIs.

JPMC and Supplier agree that the requirements contained herein are for initial work estimates only and that refinement and final agreement may occur following the Schedule Effective Date.

Supplier will provide to JPMC the following Deliverables. Deliverables described below in sections 3.2 to 3.18 will be completed according to schedule and priority set out in Schedule 2 Exhibit 3 Requirements for each Deliverable shall be mutually agreed upon before Supplier commences development of the applicable Deliverable, the requirements for the API only Deliverables listed below is indicative and

subject to change. Thereafter, any added requirements, including additional data sources, shall be subject to additional fees. All data sources listed in this section 3 will be provided to the extent that, and provided that Supplier continues to have a licence to such third party data.

- 3.1 Security Quote Screen APIs
- Description:
 - Primary equity quote detail and profile page with snapshot performance measures, profile information, news and research
- Core functionality:
 - APIs for detailed quote information for securities
 - APIs for company description and key fundamentals
 - APIs for Intraday and historical charting
 - APIs for company-specific news headlines with links to news article pages
- o Data sources facilitated by Supplier:
 - Stock exchanges all delayed:
- US Composite covers NYSE Tape A/Tape B, and Nasdaq (this will cover Nasdaq, NYSE, NYSE Arca, AMEX) – Stocks and ETFs
- Hong Kong SE Stocks only (no ETFs)
- Euronext Cash Stocks only (no ETFs)
- Deutsche Boerse Xetra Core Stocks only (no ETFs)
- London SE Stocks only (no ETFs)
 - Indices (for chart comparisons):
 - o DJIA (delayed only)
 - o S&P 500 (delayed only)
 - NASDAQ Composite (delayed only)
 - o HSI (delayed only)
 - Euronext All Indices (delayed only)
 - o Deutsche Boerse Indices and Xetra ETF (delayed only)
 - Equity profile and fundamentals: Morningstar
 - Corporate events: Morningstar
 - Company news: MT Newswires displayed only for users not entitled to research
- o Industry Peer, including top 5 industry peers in the JPM universe and its data points including Last price, price target and P/E (TTM)
- News filtered by stock ticker unless no results then display news for company unless no results then display news for industry
- JPMC responsibilities:
 - Provide user identifiers (JPMC PIDs) for entitlements and quote counting
 - Provide hyperlinks to JPMC secure pages for contextual passing and redirects
 - Provide designs in accordance with API specifications from Supplier;. Minor
 design updates may be made after this date so long as both JPMC and Supplier
 agree in writing (including email) changes do not impact delivery date.
 - All relevant data licenses maintained for API functionality
 - Add disclaimer to front end for peers only being returned within tradeable universe.
- o Assumptions
 - The parties shall use JWT Authentication protocol for JPMC to access the APIs
- For clarity, the API endpoints which are considered as part of this deliverable are as follows using the Supplier naming convention:
 - XREF used for symbol search and cross referencing

- Quote used for quote details
- News used for licensed news data
- Quote Intraday Historical used for charting data for short term intraday charts
- Quote Historical used for charting data for longer term end of day charts
- Equities Morningstar Estimates used for key financials
- Equities Morningstar Financial Ratios used for key financials
- Equities Morningstar Management used for key financials
- Equities Morningstar Asset Classification used for key financials
- Equities Morningstar Earnings used for key financials
- Equities Morningstar Peers used for key financials
- Equities Morningstar General Information used for company description
- Equities-morningstar-corporateactions-dividends used for charting overlays and dividend data
- equities-morningstar-corporateactions-splits used for charting overlays

Additional optional API services/access which are not consumed as of Effective Date of this Schedule but can be enabled as per the fees set out in the Fee table Deliverable 2 in Exhibit C. Enablement of these APIs is dependent on them being created and being accessed by JPMC as per Schedule 2 (CW2630787 and having an effective date January 31, 2019). If APIs have not been created under Schedule 2 than additional build fees may apply and will be stated under a separate Schedule entered into between the parties.

- 3.2 Option Chain & Chain Quote API
- o Description:
 - Option chain component with standard options chain quote information
- o Core functionality:
 - Options chain app build with seamless experience for filtering on expirations, calls/puts, and strike counts with real-time options data:
 - Expiration
 - Strike
 - Bid
 - Ask
 - Last
 - Change \$/%
 - Volume
 - Open Interest
 - Delta
 - Midpoint
 - Breakeven
 - Data sources facilitated by Supplier:
 - OPRA real-time and delayed data
- O JPMC responsibilities:
 - Provide user identifiers (JPMC PIDs) for entitlements and quote counting
 - Provide designs in accordance with API specifications from Supplier
- Assumptions
 - OPRA monthly quote reporting will be facilitated by Markit
 - This will be Markit Digital's standard Option API product.

- 3.3 Option Quote APIs
- o Description:
 - Options quote APIs
- Core functionality:
 - API for use case 1
 - Request type: request/response driven by end user page views of JPMC client portals
 - Input: Symbol
 - Response: All Expirations (w/ flags for Monday/Wednesday/Weeklies/Monthlys)
 - API for use case 2
 - Request type: request/response driven by end user page views of JPMC client portals
 - Input: Symbol + Expiration
 - Response: All Strikes
 - API for use case 3 (this can be used on the trading ticket for single option quote, real-time data for individual user holdings per request, or delayed data for scheduled snap use case for all client held option positions)
 - Request types:
 - Request/response driven by end user page views of JPMC client portals
 - Programmatic bulk request/response driven by a scheduled job which requests up to 15,000 symbols with up to 2,000 symbols/per request every 5 minutes during trading hours
 - Multi-Ouote request to be utilized for bulk request process:
 - Initially, Supplier will support up to 200 symbols per request. In a subsequent release based on a mutually agreed upon timeline, Supplier increase support up to 2,000 symbols per request
 - Initially, Supplier will also support multi-threaded requests, enabling JPMC to send multiple requests in the same or near same second, with up to 200 symbols per request
 - Input: One or more symbol/expiration/strike requests
 - Response: for each option contract:
 - Expiration
 - o Strike
 - o Last
 - o Change \$/%
 - o Bid
 - o Bid size
 - o Ask
 - Ask size
 - o Multiplier
 - Midpoint
 - Volume
 - Open Interest
- Data sources facilitated by Supplier:

- OPRA real-time and delayed data
- o JPMC responsibilities:
 - Provide user identifiers for entitlements and quote counting
 - •
- o Assumptions
 - Supplier will provide its standard Option Quote API product
 - OPRA monthly quote reporting will be facilitated by Supplier

3.4 Watchlist APIs

- Description:
 - Watchlist to allow user to create and track securities within a watchlist
- Core functionality:
 - Baseline functions will be:
 - Create new watchlist from main Watchlist page
 - Create new watchlist from 'Add to Watchlist' button pattern
 - Add symbol from quote detail page
 - Toggle to different user watch lists
 - Quote detail side panel slide-in (invoked when clicking symbol from watchlist)
 - Add symbol from quote detail side panel slide-in (invoked when clicking symbol from watchlist)
 - Data points:
 - Symbol/Name
 - Price / Day Change (\$/%)
 - Day Range
 - 52-week range
 - Time stamp for quote
 - Delayed pricing data for non-investment customers
 - NASDAQ Basic real-time stock/ETF pricing data for investment customers
 - New data returned via web services include:
 - Remove multiple symbols from user watch lists (multi-select)
 - Delete user watch lists
 - Rename user watch lists
 - Additional data points for custom views:
 - Change since added (\$/%)
 - Basic Stock/ETF/Fund fundamentals (Market cap, EPS, P/E ratio, Dividend Yield, Ex-Dividend date, etc...)
 - Performance data (YTD, 1 mo, 3 mo, 6 mo, 1 yr, 3 yr, 5 yr, 10 yr)
 - J.P. Morgan equity research:
 - o Rating
 - Price Target
 - Quarterly Earnings Estimates / Actuals
 - Yearly Earnings Estimates / Actuals
 - o PDF report link
 - Universe of MIND events shall be mutually agreed upon between the parties and is subject to JPMC's content licenses
 - Technical events (e.g. company xyz reached its 52-week high)

- Corporate events (e.g. company xyz dividend pay date is xx/xx)
- 3rd party research (e.g. Morningstar rating changes)
- JPM equity research (e.g. JPM price target change)
- Market indices
- o Data sources facilitated by Supplier:
 - Stock exchanges: NYSE (delayed), NASDAQ (delayed), NASDAQ Basic (real-time),
 - Indices: DJIA (delayed & real-time), S&P 500 (delayed & real-time), NASDAQ Composite (delayed & real-time)
 - Equity fundamentals: Morningstar
 - Fund fundamentals and ratings: Morningstar DataWarehouse U.S. funds
 - Equity research: J.P. Morgan Research & Estimates
 - JPMC may elect to include two (2) additional equity research sources currently available on Supplier's platform
- o JPMC responsibilities:
 - Provide user identifiers (JPMC PIDs) for saving watchlist symbols and preferences
 - Provide access to existing JPMC user watchlist symbols to upload/migrate in a
 mutually agreed upon format and timeline. Specification of watchlist data for
 migration to be provided by JPMC to Supplier at least 8 weeks prior to expected
 delivery
 - Provide entitlements as part of authentication handshake indicating whether user is entitled to real-time/delayed quotes.
 - Provide identifier for investment users.
- o Assumptions:
 - Users can create up to 20 individual watchlist with up to 50 symbols per watchlist via API.
 - JPMC will provide a consolidated file in a mutually agreed upon format (e.g. CSV) with mutually agreed upon symbology
 - If Supplier is required to integrate additional JPMC research at the database level, additional fees may apply
- 3.5 Mutual Fund Quote & Profile APIs
- Description:
 - Primary mutual fund quote detail and profile page with snapshot performance measures, (both gross and net of fees) profile information and rating
 - Core functionality:
 - NAV and key performance information
 - Fund description/profile
 - Fund characteristics including sector and geographical breakdown
 - Fund ratings
 - Basic Chart with links to historical pricing data table and Interactive Chart
 - Link to JPMC trade ticket Supplier to process two files: tradable funds at JPMC, tradable funds for You Invest
 - Ability to add symbol to Watchlist (a specific watchlist the user has set up)
 - Portfolio Composition X-ray level (asset allocation / sector weights / regional

- exposure / market cap)
- Top 10 holdings
- Growth of 10K over various timeframes (1 year, 5 year, 10 years, etc) including both gross and net of fees
- Data sources facilitated by Supplier:
 - Stock exchanges: NASDAQ NFN quote data (real-time MFQS daily valuation data)
 - Fund fundamentals and ratings: Morningstar DataWarehouse U.S. funds
- JPMC responsibilities:
 - To pass two files: tradable funds at JPMC, tradable funds for You Invest-
- o Assumptions
 - Requirements for the tradable funds file integration need to be determined and additional fees may apply
- 3.6 ETF Quote & Profile APIs
- Description:
 - Primary ETF quote detail and profile page with snapshot performance measures, profile information and rating
- Core functionality:
 - price and key performance information
 - Fund description/profile
 - Fund characteristics including sector and geographical breakdown
 - Fund ratings
 - Basic Chart with links to historical pricing data table and Interactive Chart
 - Link to Options Chain
 - Link to JPMC trade ticket
 - Ability to add symbol to Watchlist (a specific watchlist the user has set up)
 - Portfolio Composition X-ray level (asset allocation / sector weights / regional exposure / market cap)
 - Top 10 holdings
- o Growth of 10K over various timeframes (1 year, 5 year, 10 years, etc)Data sources facilitated by Supplier:
 - Stock exchanges: NYSE (delayed), NASDAQ (delayed), NASDAQ Basic (real-time), OTC (delayed)
 - Indices (for chart comparisons): DJIA (delayed & real-time), S&P 500 (delayed & real-time), NASDAQ Composite (delayed & real-time)
 - Fund fundamentals and ratings: Morningstar DataWarehouse U.S. funds JPMC responsibilities:
 - Provide user identifiers (JPMC PIDs) for entitlements and quote counting
- Assumptions
 - N/A
- 3.7 Stock Quote & Profile Extended Quotes & OTC Notification APIs
- Description:
 - Extend quote and OTC market data as entitled
- o Data sources facilitated by Supplier:

- Stock exchanges: NYSE (delayed), NASDAQ (delayed), NASDAQ Basic (real-time), OTC (delayed)
- Indices (for chart comparisons): DJIA (delayed & real-time), S&P 500 (delayed & real-time), NASDAQ Composite (delayed & real-time)
- o JPMC responsibilities:
- o N/A Assumptions
 - N/A

3.8 Stock Top Holders APIs

- Description
 - Top mutual fund and ETF holders of a stock
- Core functionality:
 - list of mutual funds and ETFs with largest holdings of the specified stock
- Data sources facilitated by Supplier:
 - Top 10 holdings: Morningstar DataWarehouse U.S. mutual funds and ETFs
- o JPMC responsibilities:
- Assumptions
 - N/A

3.9 Stock Fundamentals APIs

- Description
 - Detailed fundamental performance information added to the Stock Quote & Profile component
 - Components for financials statements (income statement, balance sheet, cash flow)
- Core functionality:
 - various fundamental data and performance for stocks
- Data sources facilitated by Supplier:
 - Equity profile and fundamentals: Morningstar
- JPMC responsibilities:
- N/A Assumptions
 - N/A

3.10 Stock Performance Comparison APIs

- Description
 - Performance of specified stock compared to its industry peers and benchmarks (indices/sector/subsector)
- Core functionality:
 - Various price performance comparisons for stocks
- Data sources facilitated by Supplier:
 - Equity profile and fundamentals: Morningstar
- JPMC responsibilities:
- N/A Assumptions
 - N/A

3.11 Stock Research APIs

- Description
 - Ratings, research and earnings estimates for a specified stock
- Core functionality:
 - Research data and reports for stocks
- o Data sources facilitated by Supplier:
 - Research: J.P. Morgan Research & Estimates
 - 3rd party research provider(s) as mutually coordinated between JPMC and Supplier
- o JPMC responsibilities:
 - JPMC will be responsible for delivering JPMC research to Supplier for integration in Stock Research component(s)
- Assumptions
 - N/A

3.12 Stock News APIs

- Description
 - News delivery and exploration capabilities for a specified stock
- Core functionality:
 - Filter news by various parameters including source, news category, keywords/phrase, timeframe
- Data sources facilitated by Supplier:
 - News: Comtex
 - JPMC may elect to include two (2) additional news sources currently available on Supplier's platform
- JPMC responsibilities:
 - JPMC will be responsible for delivering JPMC research to Supplier for integration in Stock Research component(s)
- Assumptions
 - N/A

3.13 Mutual Fund Quote & Profile – Additional Detail APIs

- Description:
 - Additional content/modules added to Mutual Quote & Profile
- Core functionality:
 - Additional ratings
 - Peer comparison; peer comparison methodology shall be mutually agreed upon between the parties
- O Data sources facilitated by Supplier:
 - Fund fundamentals and ratings: Morningstar DataWarehouse U.S. funds
 - Other research/ratings?
- JPMC responsibilities:

N/A

- Assumptions
 - N/A

3.14 ETF Quote & Profile – Additional Detail APIs

- Description:
 - Additional content/modules added to ETF & Profile
- Core functionality:
 - Additional ratings
 - Peer comparison
- Data sources facilitated by Supplier:
 - Fund fundamentals and ratings: Morningstar DataWarehouse U.S. funds
 - Other research/ratings?
- JPMC responsibilities:
 - N/A
- Assumptions
 - N/A

3.15 Market Overview APIs

- Description:
 - Key market indicators across regions, securities, benchmarks and events
- Core functionality:
 - Today's Market summary / analysis message
 - Basic charting for indices
 - Regions/Instruments
 - US

DJIA **NASDAQ** S&P 500 **NYSE AMEX**

Global

Hang Seng

• Currencies U.S

U.S. Dollar

Argentinean Peso

Brazilian Real

Canadian Dollar

Chilean Peso

Dominican Peso

Mexican Peso

British Pound

Czech Koruna

Danish Krone

European Euro

Hungarian Forint Norwegian Krone

Polish Zloty

Russian Ruble

Swedish Krona

Swiss Franc

Australian Dollar

Renminbi

Hong Kong Dollar

Indian Rupee

Indonesian Rupiah

Japanese Yen

Malaysian Ringgit

New Zealand Dollar

Pakistani Rupee

Singapore Dollar

South Korean Won

Taiwanese Dollar

Thai Baht

Egyptian Pound

Israeli Shekel

South African Rand

Turkish Lira

UAE Dirham

- Bond & treasury yields
- Economic Events
 - Producer price index
 - Consumer price index
 - Treasury budget
 - Existing home sales
 - GDP
 - S&P Case-Shiller HPI
 - Crude oil inventories
 - Fed Funds rate & FOMC forecasts
- Sectors and Industries
- Actives/Gainers/Losers for each region, sector and industry and visuals
- Historical performance for each region, sector and industry and visuals
- Comparison for each region, sector and industry and visuals (P/E, Earnings Yield, Earnings Growth, Revenue Growth, etc)

A:36 PM Americal New York

- Economic calendar summary
- Upcoming company events (earnings, acquisitions, etc), as available from data source summary with link to detailed Market Calendar
- Market news
- Data sources facilitated by Supplier:
 - Leverage data entitlements from Deliverables above, including stock exchanges, indices, news, research and other benchmarks
 - Economic events from Econoday or a 3rd party data provider alike available on Supplier's platform, as mutually agreed upon between JPMC and Supplier
- o JPMC responsibilities:
 - Provide user identifiers (JPMC PIDs) for entitlements and quote counting
- o Assumptions
 - N/A

3.16 Market Calendar APIs

- Description:
 - Calendar of key U.S. economic and company events
- Core functionality:
 - Economic calendar
 - Upcoming company events (earnings, acquisitions, etc)
 - Stock analyst upgrades/downgrades (subject to content licensing)
- Data sources facilitated by Supplier:
 - Economic calendar: Econoday
 - Corporate events: Morningstar
 - Analyst research
- JPMC responsibilities:
 - N/A
- Assumptions
 - N/A

News & Events Experience APIs 3.17

- Description:
- 36 PM Americal New York News and events tailored to user's holdings, watchlist, and recently viewed securities
- Core functionality:
 - Events (e.g. earnings, dividends, corporate actions, technical analysis etc.) relevant to user's holdings, watchlist and browsing behavior
- Data sources facilitated by Supplier:
 - Leverage data entitlements from Deliverables above
- JPMC responsibilities: 0
- N/A 0
- Assumptions

3.18 Stock Research Overview APIs

- Description
 - Key equity research information
 - Core functionality:
 - Summaries of research content, including:
 - New coverage
 - Changes (price target, ratings, etc)
 - Earnings surprises
 - Top analysts
 - Potential breakouts
 - Launch into research reports and more research on a specific stock (Stock Research)
- Data sources facilitated by Supplier:
 - Equity research: J.P. Morgan Research & Estimates,
 - JPMC may elect to include two (2) additional equity research sources

currently available on Supplier's platform

- JPMC responsibilities:
 - JPMC will be responsible for delivering JPMC research to Supplier for integration in Stock Research Overview
- Assumptions
- nichael@iustoriidit.com. Jul 29.202A. A. A. A. 36 PM Americantem York If Supplier is required to integrate additional JPMC research at the database

SERVICE LEVELS EXHIBIT

EXHIBIT B

SERVICE LEVELS

1. DEFINITIONS.

The following terms will have the following meanings when used in this Schedule:

- "Credit" means one (1) percent of the Fee for the Services during the Measurement Period.
- "Disruptive Maintenance" means a Measurement Interval during which the Services or System is unavailable due to maintenance, of which JPMC has received, at least five (5) business days prior notice.
- "Downtime" means a Measurement Interval during which Supplier fails to provide the full functionality of the Services and System, excluding Disruptive Maintenance.
- "End User" means the ultimate user of the System in a production environment.
- "Incident" means any issue that prevents the System from functioning as intended in a production environment.
- "Incident Response" means Supplier's standard process for handling Incidents, including internal and external communication, documentation and resolution.
- "Incident Manager" means Supplier staff trained in Incident Response; capable of coordinating Incident investigation and responsible for communicating technical details to JPMC and Supplier staff.
- "Measurement Interval" means one minute.
- "Measurement Period" means one month, less any Disruptive Maintenance.
- "Resolution Time" means the elapsed clock time between (i) JPMC's Service Call to report a problem and (ii) implementation of a change in or adjustment to the System that corrects the problem and causes the System to be in Compliance and operate without malfunction.
- "Response Time" means the elapsed clock time between (i) the Service Call to report a problem and (ii) a Supplier technical support analyst capable of understanding the problem speaking to JPMC's support contact about the problem.
- "Right of Termination for Deficiency" means JPMC's right to terminate the Services without penalty, effective upon notice to Supplier, which may be exercised within 30 days following the completion of the applicable Measurement Period.
- "Service Network" means the network used by Supplier to provide the services.
- "Third Party" means any service, data or content provider that is neither the JPMC nor Supplier.

"Workaround" means a solution that resolves a problem without decreasing System features, functionality or performance or resulting in an added burden or expense to JPMC.

2. RESPONSE AND ESCALATION SERVICES.

Supplier will respond to any and all Incidents, requests for maintenance, support services escalations, or queries via its Tier 1 Support Center ("Tier 1") 24 hours a day, 7 days per week, 365 days per year. Tier 1 can be reached at MOD-NOC@ihsmarkit.com or +1.303.583.4308. Response to any escalation will be from a technical incident responder in the Tier 1 and not an automated reply.

Upon notice of any Incident related to any part of the services provided by Supplier to JPMC, Tier 1 personnel will initiate the Incident Response procedure and provide the Supplier tracking ticket number within 15 minutes. Tier 1 will respond within 15 minutes of receiving notice of the Incident, regardless of severity level.

For all issues classified "Sev 1 –Total Outage" or "Sev 2 – Major Outage" as per Table 2 below, Tier 1 will contact an Incident Manager in conjunction with creating the initial tracking ticket. The Incident Manager will join the investigation within 15 minutes during Supplier's core support hours (24 hours a day, Monday through Friday, excluding holidays) and within 30 minutes otherwise (including weekends). The Incident Manager will provide JPMC with proactive status updates via email or phone.

Supplier will respond to Incidents, requests for maintenance, support service escalations, or queries from JPMC or approved representatives of JPMC only. Should an End User contact Supplier directly, Supplier will (i) instruct the End User to contact JPMC directly and (ii) request the Project Manager to follow up with JPMC.

Incident Severity Determination: Supplier will classify escalation severity level for any Incident (whether reported by JPMC or via Supplier internal monitoring alert) according to the criteria in Table 2.

If, as a result of the ongoing investigation, severity is determined to be lower or higher than initially observed, Supplier will reset severity level and response expectations.

Incidents caused by Supplier third party vendors (contracting directly with Supplier) will be classified and handled the same as Supplier-related issues.

3. SERVICE LEVELS

System Operation Service Levels. Supplier will provide the Services to JPMC so that all of the quantitative measurements set forth in the first column of Table 1 below (each, a "Metric") satisfy the corresponding specifications set forth in the second column of Table 1 below (each, a "Standard"). If any Metric does not satisfy one or more of its corresponding Standards, then JPMC will be entitled to receive the corresponding remedy(ies) set forth in the third column of Table 1 (each, a "Remedy").

Table 1. Service Levels for System Operation

Metric	Standard	Remedy	
	99.89% + of each Measurement	One Credit for each 0.5	
	Period	percentage points below Standard	

Availability - Percentage of	98.00% + of any Measurement	Right of Termination for	
Measurement Intervals that are	Period	Deficiency	
not Downtime			
System Response Time -	See "System Response Time	See "System Response Time	
Percentage of requests that satisfy	Requirement" section below	Requirement" section below	
the System Response Time	96% or less meeting Requirement	Right of Termination for	
Requirement		Deficiency	
Total Credits accumulated during	20 Credits	Right of Termination for	
any Measurement Period		Deficiency	

Response and Resolution Times. Supplier will respond to and resolve problems so as to meet all of the Service Levels in Table 2 below. If Supplier does not satisfy one or more of those Service Levels, JPMC will be entitled to receive the credits specified below. (For example, if Supplier provides a Workaround for a Priority 1 problem in eight hours, Supplier will owe four Credits. Such credits will be deemed to be price reductions reflecting a diminution in the value of such services as a result of the failure to meet the service levels rather than liquidated damages or a penalty. Any failure by Supplier to meet any service levels rather than liquidated damages or a penalty. Any failure by Supplier to meet any service levels rather than liquidated damages or a penalty. Any failure by Supplier that is incapable of cure.

Notice of Delayed Resolution. If Supplier does not resolve a problem within the Resolution Times listed in Table 2 below, Supplier will immediately notify JPMC. This notice will include (i) a reasonable explanation for the delay and (ii) a good faith schedule and plan for correction. This notice will not constitute an excuse or waiver of performance. Supplier will keep JPMC informed of the progress of its efforts to resolve Severity 1 or 2 problems at appropriate intervals or as requested by JPMC.

4. Availability Requirement

Supplier will ensure that the System will be available at least 99.9% of the time as measured over each calendar month during the Term ("Availability Requirement").

Monitoring Approach: Supplier will choose one or more APIs of the System to monitor in order to determine Availability. API Endpoint selections will be reviewed with the JPMC to ensure appropriateness. Each API will be monitored continuously from more than one location outside of Supplier's network on a round-robin basis at least once per minute. An API fails a monitoring test if two monitoring locations fail to access an API in two successive tries from each monitoring location.

Availability Calculation: Availability will be calculated at the end of each month based on data provided by Supplier's external monitoring provider. An API will be considered to be unavailable from the time of the first failure until the first subsequent success. All such intervals will be reviewed and validated by Supplier. Availability will then be calculated as the sum of all periods during which the API was available during the calendar month, divided by the total time in the month. One percentage will be calculated per month.

Exclusions: Any failure due to an outage of a Third Party will be excluded from the Availability calculation.

5. System Response Time Requirement

Supplier will ensure that the Customized Solution meets specific targets as set forth below ("System Response Time Requirement").

Monitoring Approach: Each request will be continuously monitored from more than one location outside of Supplier's network on a round-robin basis at least once per minute. System response time will be recorded by Supplier's external monitoring provider. System response times will not be considered for failures, as failures are addressed by the Uptime Requirement.

System Response Time Calculation: Response Time will be calculated at the end of each month based on data provided by Supplier's external monitoring provider. The percentage of requests that satisfy the Response Time Requirement shall be the number that completed in less than the associated target time divided by the total number of requests that completed successfully. One percentage will be calculated for each request during the month.

Exclusions: Any impact due to a Third Party will be excluded from the System Response Time Requirement calculation.

Credits: If, in any calendar month during the Term, Supplier falls below the System Response Time Requirement, then without limiting any other right or remedy to which Client may be entitled as a result of such System Response Time, whether under this Agreement, at law or in equity, Supplier will grant JPMC a proportional credit for that month based on the table set forth below, calculated as follows: the percentage set forth in the table below multiplied by the Service Fees due to for the same period. If multiple requests fail to meet the System Response Time Requirement in a given month, the total Credits shall be the largest of the individual Credits.

For clarity, the API to be monitored for the System Response Time Requirement and the System Response Time Target shall be:

D 1 T	D (OD()	G 1'4
Request and Target	Percentage of Requests meeting	Credit
	Requirement	
	0,1	
API Response Times:	98.00-98.99%	One Credit
	97.00-97.99%	Two Credits
Number of Securities per Request	96.99% or less	Three Credits
Average 10-30 fields per security per		
response 95% of the time – Response		
Time SLA within the Vendor		
Infrastructure:		
1-5 symbols <100 milliseconds		
6-10 symbols < 150 milliseconds		
11-25 symbols < 300 milliseconds		
26-50 symbols < 600 milliseconds		
51-100 < 1000 milliseconds		
101 -200 symbols < 1500 milliseconds*		
Over 200 symbols No specific SLA		

Listed Options Chain for a Underlying	
Equity/Index 95% of the time -	
Response Time SLA within the	
Vendor Infrastructure:	
Up to 100 nodes in the Chain <1500 milliseconds	
	10th

michael@justouidit.com. Jul 29, 2024, 1:14:36 Pm America Mem Ye

6. REPORTS.

Supplier will provide to JPMC, upon written request, within 15 business days of the end of each calendar month during the term of this Schedule, a report or series of reports that cover, at a minimum, the following information regarding the performance of the System and Services:

- 7. To be automated for distribution to JPMC on a monthly basis (Issue Response):
 - (A) the monthly System Availability percentage;
 - (B) monthly reporting on System Response Time Requirement;
 - (C) the number of client reported Issues received during the preceding month; date and time received; date and time that Issue was closed for Issues resolved during previous month; and a listing of all outstanding problems;
 - (D) a summary of JPMC requests for upgrades and/or modifications to the System; and
- **8.** To be distributed to JPMC upon occurrence and/or request (Demand Management):
- **9.** the Service Credits earned by JPMC;
 - (A) a summary of actions taken or planned to remedy any failure by Supplier to meet any of the Service Levels set forth in this Exhibit.
 - (B) Post Mortem Markit will provide detailed reporting for all Sev 1 Total Outage or Sev 2 Major Outage Incidents, including a summary of the Incident and its impact, chronology of actions taken, time to resolution, lessons learned, and opportunities for improvement. Such report will be delivered to Client within five (5) business days of the resolution of the Incident.
 - (C) Ad-hoc Reports To the extent that the information requested from JPMC is available

For avoidance of doubt, the foregoing reports are in addition to any reports and analytics described elsewhere in this Agreement.

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10. Incidents and Software Errors Severity Level - JPMC Definition

Severity Level	Description	Examples
P1 - Critical	(a) API is non-operational, resulting in a critical condition or a critical impact on Client's business, requiring immediate Workaround or Resolution. Incidents that cannot be resolved by Level 1 Support within one (1) hour will be immediately escalated to Supplier's Level 2 customer support. Support personnel will continuously work to resolve the problem(s) and will apprise Client of the status every hour. Supplier will assign a crisis manager who shall be responsible for and manage the Resolution of the problem to its completion.	 Website down Hardware failure Login failure Major software failure System hanging up Customer unable to complete an interaction with the Website or cannot complete an action within the customer workflow. API Failure
P2 - High	(b) API is operational but a significant feature or function is not operating properly or is not operational and there is an immediate impact on Client's business. Severity Level 2 (P2) Incidents that cannot be resolved by Level 1 Support will be escalated to Supplier's Level 2 Support within two (2) hours. Support personnel will continuously work to resolve the problem(s) and will apprise Client, at Client's request, of progress toward a Resolution.	 Data upload failure (ie data out of date) Secure messaging not operational Slow response time A dysfunctional Software function/feature
P3 – Medium/Low	(c) API is operational with problems or errors, which do not fall within the definition of Severity 1 or Severity 2 Incident. Severity 3 Incidents will be addressed and resolved in a future Update of the API.	Intermittent slownessGeneral Software defects

11. Incidents and Software Errors Severity Level - Supplier Definition

Severity	Severity Definition	Service Level Metrics and Standards		
Priority	, and the second	Required Response Time/ Remedy	Required Resolution Time/ Remedy	Required Action/Escalation
Severity 1 (Total Outage)	An issue that has major widespread effect on all Supplier Clients and/or End Users. Example: complete inaccessibility or unavailability of the Customized Solution due to a major failure across multiple clients.	Standard: Immediate (i.e., less than 30 minutes). Remedy: 1 Credit: • if Response Time exceeds 30 minutes; and • for each 30-minute interval thereafter until a response is provided.	 Standard: 4 hours for a Mitigation. Remedy: 1 Credits: if Resolution Time for a Mitigation exceeds 4 hours; and for each 1-hour interval thereafter until a Mitigation is provided. Standard: 48 hours for a fully tested permanent correction. Remedy: 1 Credits: if Resolution Time for a permanent correction exceeds 48 hours; and for each 24-hour interval thereafter until a permanent correction is provided. 	Supplier will use all commercially reasonable efforts to resolve each problem as quickly as possible within 2 hours after Supplier learns of the problem, or within a shorter timeframe as the parties may otherwise agree. Supplier will provide qualified Supplier technical support and developer personnel, as needed, to work on the problem exclusively and continuously until it is corrected. If not resolved within 2 hours, Supplier's Chief Operating Officer will be paged and Supplier will further escalate its efforts to resolve the problem.
Severity 2 (Major Outage) Maps to JPMC P1	An Issue that has significant impact on JPMC and/or its End Users. Examples: complete inaccessibility or unavailability of the System or a key page or module therein A Severity 2 problem may be composed of a collection of problems that would otherwise individually constitute Severity 3 or Severity 6 problems, but which, taken as a whole, have	(i.e., less than 60 minutes) Remedy: 1 Credit: if Response Time exceeds 60 minutes; and	 Standard: 24 hours for a Mitigation. Remedy: 1 Credits: if Resolution Time for a Mitigation exceeds hours; and for each 24-hour interval thereafter until a Mitigation is provided. Standard: 120 hours for a fully tested permanent correction. Remedy: 1 Credits: 	Supplier will use all commercially reasonable efforts to resolve each problem as quickly as possible within 24 hours after Supplier learns of the problem, or within a shorter timeframe as the parties may otherwise agree. Supplier will provide qualified Supplier technical support and developer personnel, as needed, to work on the problem exclusively and continuously until it is corrected.

	the effect of a Severity 2		• if Resolution Time for a permanent	If not resolved within 24 hours,
	problem.		correction exceeds 120 hours; and	Supplier's Chief Operating Officer will
	•		• for each 24-hour interval thereafter until	be paged, and Supplier will further
			a permanent correction is provided.	escalate its efforts to resolve the problem
Severity	An Issue that affects one of	Standard: 24 hours.	Standard: 120 hours for a Mitigation.	Supplier will use all commercially
3a	Supplier's products or services,			reasonable efforts to resolve each
(Major	multiple users; a single	<i>Remedy</i> : 1 Credit:	Remedy: 1 Credit:	Severity 3 problem within 51 days after
Impact)	symbol's business critical	• if Response Time	• if Resolution Time for a Mitigation	Supplier learns of the problem, or within
•	content; Examples: multiple	exceeds 24 hours; and	exceeds 240 hours; and	a shorter timeframe as the parties may
Maps to	data points on multiple	• for each 8 hour	• for each 24 hour interval thereafter until	otherwise agree. Supplier will provide
JPMC	securities have discrepancies or	interval thereafter until	a Mitigation is provided.	qualified Supplier technical support and
P2	multiple incorrectly calculated	a response is provided.		developer personnel, as needed, to work
	data	•	Standard: A fully tested permanent	on the problem until it is corrected.
	pointsintermittent/sporadic		correction as part of Supplier's next	
	issues.		regularly scheduled release or update.	
			N ·	
			Remedy: 1 Credit:	
			• if a permanent correction is not provided	
			with Supplier's next release or update; and	
			• for each release or update thereafter until	
			a permanent correction is provided.	
Severity	Any minor service or data	Standard: 2 business	<u>Standard</u> : Supplier will provide JPMC	
3b	degradation or stale non-	day.	with a permanent correction as part of	
(Minor	business critical data.		Supplier's next regularly scheduled release	
Impact)	Examples: multiple documents	Remedy: 1 Credit:	or update or as otherwise mutually agreed	
	or multiple symbols impacted	• if Response Time	by the parties.	
Maps to	by same data point.	exceeds 2 business	D 1 1 G 11:10	
JPMC P2		day2; and	<u>Remedy</u> : 1 Credit if a permanent	
P3		for each 1 business	correction is not provided with Supplier's	
		day thereafter until a	next regularly scheduled release or update	
G		response is provided.	or as mutually agreed by the parties.	
Severity	An Issue has some impact on	Standard: 2 business	<u>Standard</u> : Supplier will provide JPMC	
6 (Minor	JPMC and/or End Users but has	day.	with a permanent correction as part of	
	no material impact. Examples: a	Page 21	Supplier's next regularly scheduled release	

Issue or	single data point has	Remedy: 1 Credit:	or update or as otherwise mutually agreed	7
Inquiries)	discrepancies; a question about	• if Response Time	by the parties.	
	a single data source or	exceeds 2 business		7
	calculation of a data point.	day2; and	Remedy: 1 Credit if a permanent	.4/
		• for each 1 business	correction is not provided with Supplier's	2
		day thereafter until a	next regularly scheduled release or update	
		response is provided.	or as mutually agreed by the parties.	

Note: Sev 4 and Sev 5 issues are reserved for internal Supplier issues.

12. Software Update

Software updates shall be provided to Client no less frequently than monthly and will usually be weekly so as to accommodate the needs arising from the API Incidents Severity Definitions as described in Section 9.

- a) Supplier shall respond to Client's request for assistance so as to meet all of the Service Levels in the Response and Resolution Schedule above. The Incident(s) will be categorized by JPMC in accordance with the Severity definitions defined in Section 9. If Supplier disagrees with JPMC's severity categorization, then Supplier shall notify JPMC and the dispute will be resolved by management review at the earliest opportunity. Notwithstanding the foregoing, JPMC shall have final determination of severity categorization. Any objection made by Supplier shall not result in Supplier's obligation to meet the time requirements as set forth in the Section 5 above, however those requirements (and resulting penalties) may be adjusted once mutual resolution between the parties has occurred.
- b) Supplier shall communicate with the client the Root Cause Analysis and Resolution plan for Severity 1 and 2 Incidents and provide status on the Workaround and/or Resolution on daily basis or as mutually agreed via email or phone until issue is permanently fixed.
- c) Supplier shall document, test, and communicate with Client the process methodology prior to any update.
- d) Supplier shall notify the Client of upcoming software updates (and impacts of such planned update/release) as reasonably far in advance as practicable but no less than ten (10) Business Days from the planned date of release (unless notification otherwise inhibits Supplier from meeting its other SLA requirements).
- e) Supplier and Client shall discuss and mutually agree on any software update schedule that is significantly changing infrastructure, functionality or introduces new features.
- f) The implementation of all software updates will be as seamless as possible.

13. COMPLIANCE AND QUALITY MONITORING

Supplier will make reasonable efforts to work within the SaaS compliance criteria and to provide evidence of the work as needed or requested to Client as follows:

a) Software development

- Coding. Secure coding practices which include secure coding guidelines, code reviews, and static analysis test results
- Documentation and review of known product risks, issues and errors, plus a mitigation strategy where applicable
- Results from dynamic testing to prove that countermeasures put in place mitigate any security risks identified through threat modeling and source code analysis
- Complete release notes covering the details of the update/upgrade and software changes, including applet / data impacts and end user experience changes

b) Software testing

- Usage of sufficient amounts of varied test data to perform testing and cover CLIENT requirements, including boundary conditions.
- 100% execution of planned test cases and regression with at least a 95% pass rate
- Review of test results with CLIENT and sign off on items, resolved, deferred or closed

c) Product data storage and security

- Test results pertaining to the use of approved grade of encryption ciphers for sensitive data exchange
- Security defect management process and all (relevant) security defects to Client including both open and resolved Change Requests
- Test results to ensure data integrity as it pertains to proper synchronization of data between on-premise and SaaS-based systems
- Demonstration of sufficient separation of CLIENT data and services from other customers. Data of each enterprise tenant should not be available for other clients throughout lifecycle of the data.
- Sufficient industry grade encryption for data storage including salt/hashing for authentication related credentials
- Data obfuscation (where applicable) in test environments to protect sensitive data and PII (Personally Identifiable Information)

d) Performance testing

- Test results for response time and throughput across geographically dispersed hosting endpoints, or extrapolation thereof
- Test results over public internet or private VPN line (off of public network) where applicable
- Simulate real world behavior by properly stressing all applicable tenants (in a multitenant environment) - Results must demonstrate that consistent performance and reliability is achieved across multi-tenant architecture
- Test environments are physically and/or logically representative of production systems
- Test results as it pertains to mutually agreed upon scalability requirements to ensure compliance with capacity planning

e) Monitoring

- Sufficient test results and data as it pertains to scripting, execution, diagnostics, monitoring, and reporting
- Confirmation and approach for synthetic transaction monitoring in production
- Test results for redundancy and failover, DR cut-over exercises and business

michael@justbuildit.com. Jul 29, 202A. 1. A. 36 PM Americantem York

EXHIBIT C

FEE EXHIBIT

1. INTRODUCTION.

This Exhibit sets forth the terms and conditions for the pricing and invoicing of fees and other amounts payable by JPMC to Supplier, and the crediting of certain amounts against such payments, pursuant to this Schedule.

In this <u>Fee Exhibit</u>, a fee payable for Services and Deliverables is payable for the Supplier correctly processing the applicable item(s), or otherwise delivering the applicable Services and Deliverables, in accordance with the terms of this Schedule, including the Service Levels set forth in the <u>Service Levels</u> Exhibit.

The fees payable with respect to ongoing Services in each month shall be calculated as the sum of:

ongoing Fees as set forth in Section 2 of this Fee Exhibit;

less any Performance Credits to which JPMC is entitled under the terms of the <u>Service Levels</u> Exhibit;

less any Deliverable Credits to which JPMC is entitled under the terms of this Schedule; less all other applicable fee credits;

plus any Pass Through Expenses payable under Section 3 of this Fee Exhibit.

All pricing provided by Supplier under this Schedule shall be consistent with this <u>Fee Exhibit</u>, including volume-based discounts and hourly rates.

The fees set forth in this <u>Fee Exhibit</u> are intended in the aggregate to compensate Supplier for all costs incurred and resources used in providing the Services. Supplier acknowledges and agrees that, other than taxes due on the Services and Deliverables in accordance with the Master Agreement, JPMC shall pay no additional or separate charges for any Services or Deliverables, management, production, operational support and other services relating or incidental to the performance of the Services and delivery of the Deliverables.

Without limiting the paragraph above, the Services and Deliverables provided under this Schedule include the acquisition, provisioning, staging, configuring, installing, testing, operating, maintaining, upgrading, and enhancing the equipment and connectivity. All costs and expenses related to complying with this provision will be borne by Supplier and are included within the Fees as described below.

2. FEES.

Ongoing Fees and One-Time Fees will be payable by JPMC from the date each respective Deliverable has been delivered, Accepted by JPMC and released into Supplier's production environment. Monthly Ongoing Fee will be prorated based on the day of the month each deliverable has been released. For clarity the Fees will be due and payable in accordance with the Fee table below.

Fee Table

	Deliverable	Effective Date	Ongoing Fees (per month)	One-Time
				Fees
1	Transfer of API to JPMC as	1 Jan 2023	\$13,000 Includes 16 hours	\$45,000
	described in Deliverables to be		monthly for Enhancement	
	Provided sections 3.1		Budget (Total of 28 hours	
			including 12 hours as stated	NL.
			under Schedule 6)	de
2	Optional API Access as described	Solely for the	\$5,00 per API endpoint per	N/A
	in Deliverables to be Provided	APIs that have	month up to a maximum of	/
	under sections 3.2 to 3.18	been built under	\$7,500 per month (multiple)	
		the Schedule 2,	set up) or \$5,000 per month	
		upon request	for access to all APIs (single	
		and	set up)	
		confirmation by	Inclusive of fees for	
		JPMC that the	managed services	
		Deliverable has	<i>al</i> '	
		moved to	O/a	
		Supplier	~G`	
		production	[· 5	
		environment	P. *	
		("Launch		
		Date")		

3. PASS THROUGH EXPENSES.

The following are valid Pass -Through Expenses:

Travel expenses as agreed between the parties. All Supplier travel, per diem, and stay costs that Supplier incurs, shall be incurred in accordance with JPMorgan Chase Supplier Travel Policy (a current copy of which is located at https://www.jpmorganchase.com/corporate/About-JPMC/abpersonnel-policies.htm or is otherwise available from JPMC upon request) and shall be subject to approval by JPMC in advance of incurring such expense.

Meals and Entertainment Expenses: JPMC and Supplier agree that if JPMC reimburses meal and/or entertainment costs incurred by Supplier, any Internal Revenue Code Section 274 limitation on deductibility of the costs will be the responsibility of Supplier not JPMC.

Third Party Content:

Applicable licensing pass through fees to be agreed between the parties in writing after the Schedule Effective Date.

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Certificate Of Completion

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catherine.allegra@spglobal.com

sVP

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Catherine allegra

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Witness Events Signature Timestamp

Notary Events Signature Timestamp

Envelope Summary Events Status Timestamps

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Certified Delivered Security Checked 1/4/2023 12:56:23 PM
Signing Complete Security Checked 1/4/2023 4:20:07 PM

Envelope Summary Events	Status	Timestamps
Completed	Security Checked	1/4/2023 4:20:07 PM
Payment Events	Status	Timestamps

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Electronic Record and Signature Disclosure created on: 10/28/2016 10:06:15 AM Parties agreed to: Catherine Allegra

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To let us know of a change in your e-mail address where we should send notices and disclosures electronically to you, you must send an email message to us at

debra.t.logan-rabb@jpmchase.com and in the body of such request you must state: your previous e-mail address, your new e-mail address. We do not require any other information from you to change your email address..

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Required hardware and software

Required natural cand Software		
Operating Systems:	Windows2000? or WindowsXP?	
Browsers (for SENDERS):	Internet Explorer 6.0? or above	
Browsers (for SIGNERS):	Internet Explorer 6.0?, Mozilla FireFox 1.0,	
iuls	NetScape 7.2 (or above)	
Email:	Access to a valid email account	
Screen Resolution:	800 x 600 minimum	
Enabled Security Settings:	•Allow per session cookies	
	•Users accessing the internet behind a Proxy	
	Server must enable HTTP 1.1 settings via	
	proxy connection	

^{**} These minimum requirements are subject to change. If these requirements change, we will provide you with an email message at the email address we have on file for you at that time providing you with the revised hardware and software requirements, at which time you will

have the right to withdraw your consent.

Acknowledging your access and consent to receive materials electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please verify that you were able to read this electronic disclosure and that you also were able to print on paper or electronically save this page for your future reference and access or that you were able to e-mail this disclosure and consent to an address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format on the terms and conditions described above. please let us know by clicking the 'I agree' button below.

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