WC DKT. 16-70

Federal Communications Commission
Washington, D.C. 20554

June 22, 2016

Via Electronic Mail

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Re: ***XO Holdings and Verizon Communications Inc. Consolidated Applications for Consent to Transfer of Control of Domestic and International Authorizations Pursuant to Section 214 of the Communications Act*** **(WC Docket No. 16-70)**

Dear Counsel:

On March 4, 2016, XO Holdings and Verizon Communications Inc. (Verizon) (together, Applicants) filed a series of applications, pursuant to sections 214 and 310(d) of the Communications Act of 1934, as amended (Act), and sections 63.04, 63.18, and 63.24 of the Commission's rules,[1] seeking approval to transfer control of various licenses and authorizations held by XO Communications, LLC (XO Communications) from XO Holdings to Verizon. In order for the Commission to complete its review of the applications and make the necessary public interest findings under sections 214 and 310(d), we require additional information and clarification of certain matters discussed in the applications.

Accordingly, pursuant to sections 214 and 308(b) of the Act, we request that you provide written responses and supporting documentation for each information request set forth in the attached Information and Document Request and, where appropriate, amend the lead application to reflect such responses. In order to expedite consideration of your application, please respond to the following information requests pertaining to this proposed transaction by **Thursday, July 7, 2016**.

[1] 47 U.S.C. §§ 214, 310(d); 47 CFR §§ 63.04, 63.18, 63.24. Consolidated Applications to Transfer Control of Domestic and International Section 214 Authorizations, WC Docket No. 16-70 (filed Mar 4, 2016) (Lead Application). Applicants filed a supplement to their application on March 22, 2016. Letter from Bryan N. Tramont, Counsel to Verizon Communications Inc., and Thomas W. Cohen, Counsel to XO Holdings, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-70 (filed Mar. 22, 2016).

Your responses should be filed with Marlene H. Dortch, Secretary, Federal Communications Commission, under reference number WC Docket No. 16-70. We request that you provide Michael Ray, michael.ray@fcc.gov, at least two copies of all narrative materials filed in response to this letter.[2]

If you have any questions regarding this matter, please contact Michael Ray at (202) 418-0357.

Sincerely,

Madeleine V. Findley
Deputy Chief
Wireline Competition Bureau

Attachment

[2] If you submit information pursuant to the Protective Orders issued in this proceeding, then you should follow the filing procedures specified therein. *XO Holdings and Verizon Communications Inc. Consolidated Applications for Consent to Transfer of Control of Domestic and International Authorizations Pursuant to Section 214 of the Communications Act*, WC Docket No. 16-70, Protective Order, DA 16-567 (WCB 2016).

ATTACHMENT
INITIAL INFORMATION AND DOCUMENT REQUEST
June 22, 2016

I. Definitions

1. The terms "and" and "or" have both conjunctive and disjunctive meanings.

2. The term "XO Communications" means XO Communications, LLC and its Subsidiaries.

3. The term "XO" means XO Holdings, its Subsidiaries, and its parents (including Carl C. Icahn).

4. The term "Verizon" means Verizon Communications Inc. and its Subsidiaries.

5. The term "Applicant" or "Applicants" means each of XO and Verizon and, to the extent applicable, XO and Verizon jointly.

6. The term "Application" means the Consolidated Applications to Transfer Control of Domestic and International Section 214 Authorizations submitted to the Commission by XO and Verizon on March 4, 2016.

7. The term "Affiliate" has the meaning ascribed in 47 U.S.C. § 153.

8. The term "Autonomous System" or "AS" means a connected group of one or more IP prefixes run by one or more network operators under a single and clearly defined routing policy.

9. "Business Data Services" or "BDS" refers to the dedicated point-to-point transmission of data at certain guaranteed speeds and service levels using high-capacity connections.

10. The term "Capacity" means capacity for efficient provision of service, stated in the measure customarily used in the particular industry involved. When stating capacity, state each assumption used to calculate capacity, including the customary period over which capacity is measured, and the customary unit of time in which the service is provided. If the Applicants know of no customary capacity measure for a service, then state the maximum amount of the service that could be provided efficiently over a one month period given existing facilities, equipment, and personnel.

11. The term "Competitive Provider" means a competitive local exchange carrier ("CLEC"), interexchange carrier, cable operator, wireless provider, or any other entity that is subject to the Commission's jurisdiction under the Communications Act of 1934, as amended, and either provides a Business Data Service or provides a wired "line" or wireless "channel" over which a Business Data Service could be provided. A Competitive Provider does not include an incumbent local exchange carrier ("ILEC") operating within its incumbent service territory.

12. The term "Content Delivery Network" or "CDN" means a distributed system of servers that cache content closer to End Users.

13. The term "discussing" when used to refer to documents means analyzing, constituting, summarizing, reporting on, considering, recommending, setting forth, or describing a subject. Documents that contain reports, studies, forecasts, analyses, plans, proposals, evaluations, recommendations, directives, procedures, policies, or guidelines regarding a subject should be treated as documents that

discuss the subject. However, documents that merely mention or refer to a subject without further elaboration should not be treated as documents that discuss that subject.

14. The term "documents" means all computer files and written, recorded, and graphic materials of every kind in the possession, custody, or control of the Applicants. The term "documents" includes without limitation, electronic correspondence, metadata, and embedded, hidden, and other bibliographic or historical data describing or relating to documents created, revised, or distributed on computer systems, and all duplicates of documents (whether or not identical) in the files of or in the files maintained on behalf of all directors, officers, managers, or other supervisory employees, duplicates of documents in all other files that are not identical duplicates of the originals, and duplicates of documents the originals of which are not in the possession, custody, or control of the Applicants. The term "documents" includes spreadsheets, as well as underlying cell formulae and other codes. In addition, the term "documents" includes without limitation any amendments, side letters, appendices, or attachments. The term "computer files" includes without limitation information stored in, or accessible through, computer or other information retrieval systems. Thus, the Applicants should produce documents that exist in machine-readable form, including documents stored in personal computers, portable computers, workstations, minicomputers, mainframes, servers, backup disks and tapes and archive disks and tapes, and other forms of offline storage, whether on or off the Applicants' premises. Electronic mail messages should also be provided, even if only available on backup or archive tapes or disks. Computer files shall be printed and produced in hard copy or produced in machine-readable form (provided that Commission staff determine prior to submission that it would be in a format that allows the Commission to use the computer files), together with instruction and all other materials necessary to use or interpret the data. Unless otherwise specified, the term "documents" excludes bills of lading, invoices, purchase orders, customs declarations, and other similar documents of a purely transactional nature and also excludes architectural plans and engineering blueprints. Where more than one identical copy of a requested document exists, the Applicants shall only produce one representative copy.

15. The term "Edge Provider" means entities that provide content, applications, or services over the Internet, and include but are not limited to online video providers, gaming companies, and voice over Internet Protocol (VoIP) providers that rely on the Internet to provide service.

16. The term "End User" means a residential or business customer (a private or public entity or an institution) that purchases a Relevant Service. With respect to Internet Access Service, the term "End User" means a Person who originates, receives, or otherwise interacts with information, data and content on the Internet.

17. The term "identify," when used with reference to a Person or Persons, means to state his/her full legal name, current or last known business address, current or last known telephone number, current or last known organization, and position therewith. "Identify," when used with reference to a document, means to state the Bates number, date, author, addressee, type of document, a brief description of the subject matter, its present or last known location, and its custodian, who must also be identified. The term "identify" when used with reference to a census block means to geocode the census block using the 2010 Census Block Identifier.

18. The term "Interconnection" means the linking together of interoperable systems, and the linkage used to join two or more communications units, such as systems, networks, links, nodes, equipment, circuits, and devices.

19. The term "Interconnection Agreement" means an agreement for the purchase of Transit Service, the sale of Transit Service, Settlement-Free Peering, Paid Peering, or equivalent agreements.

20. The term "Interconnection Partner" means any Autonomous System with which each Applicant has an Interconnection Agreement.

21. The term "Internet Access Service" means the provision to End Users of Internet connectivity by any means, including, for instance, hybrid-coaxial, optical fiber or coaxial cable, xDSL, satellite systems, fixed or mobile wireless services, ultra-high frequency microwave (sometimes referred to as LMDS), or multichannel multipoint distribution services.

22. The term "Internet Backbone Services" means services that route traffic between Internet Access Services, other Internet Backbone Services, Edge Providers, and CDNs, and, when exchanging traffic with third-party services or networks, the exchange of traffic by means of Settlement-Free Peering, Paid Peering or Transit Service.

23. The term "IP Point of Presence" means any point where an Internet Access Service or an Internet Backbone Service interconnects, offers to interconnect, or intends to offer Interconnection with other Internet networks, services, or Edge Providers.

24. The term "Paid Peering" is Peering in which one Peer pays another for the exchange of traffic. Paid peering is sometimes referred to as "Non-Transit" interconnection.

25. The term "Peer" means a Person who is a party to a Peering arrangement.

26. The term "Peering" means an Interconnection arrangement between Persons, pursuant to which Internet traffic is exchanged between Persons and their customers, however, there is no Transit Service through networks to other Peers or Transit Service providers.

27. The term "Person" includes the Applicants, and means any natural person, corporate entity, association, partnership, joint stock company, trust, unincorporated association, joint venture, limited liability company or other entity, or a government or any political subdivision or agency thereof.

28. The term "plans" means tentative and preliminary proposals, recommendations, or considerations, whether or not finalized or authorized, as well as those that have been adopted.

29. The term "Public Interest Statement" means (1) Exhibit 1 to the Application; and (2) the supplemental letter submitted by the Applicants in support of the Transaction in WC Docket No. 16-70 dated March 22, 2016 (Supplement).

30. The term "relating to" means in the whole or in part constituting, containing, concerning, discussing, describing, analyzing, identifying, or stating.

31. The term "Relevant Service" as used herein means, and information shall be provided separately for, each voice or data telecommunications service sold by each Applicant on a wholesale or retail basis. The term specifically includes (but is not limited to): local and long distance voice services, Internet Access Services, Internet Backbone Services, BDS, private line services, Ethernet services, VoIP services, unified communications services, virtual private network (VPN) services, security and managed networking services, and cloud connectivity services. Notwithstanding the foregoing, for

purposes of this information request the term does NOT include mobile wireless services or services typically provided to residential customers.

32. The term "responses" means documents or other information submitted in response to a particular information request.

33. The term "revenues" means billed amounts for goods or services without any allowance for uncollectibles, commissions or settlements. Revenues should ***not*** include settlement receipts for terminating foreign traffic billed by foreign carriers, nor any amounts corresponding to taxes levied on a company's customers by any governmental body. Revenues ***should*** include any pass-through charges that a company levies on customers to recover taxes, regulatory fees, or other assessments placed on a company.

34. The term "Settlement-Free Peering" means Peering where there are no payments exchanged between network providers for the exchange of traffic.

35. The term "Specified Service" means BDS and Internet Backbone Services.

36. The term "Subsidiary" as to any Person, means any corporation, partnership, joint venture, limited liability company, or other entity of which shares of stock or other ownership interests having ordinary voting power to elect a majority of the board of directors or other managers of such corporation, partnership, joint venture, limited liability company, or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly, through one or more intermediaries, or both, by such Person.

37. The term "Transaction" means the proposed transaction contemplated by the Application that, if completed, would result, *inter alia*, in Verizon acquiring control of the domestic and international section 214 authorizations of XO Communications.

38. The term "Transit Service" means a service arrangement where a customer pays an Internet Backbone Services provider to send and receive traffic to and from destinations that can be either on or off the provider's network.

II. Instructions

1. Unless otherwise specified, each information request that calls for documents requires each Applicant to submit all responsive documents that were created or received by each Applicant on or after January 1, 2014.

2. Submit responses to information requests in both paper and electronic form, unless an electronic form is specified (e.g., electronic spreadsheet). Submit responsive documents (including materials containing Highly Confidential or Confidential Information) in electronic form only, unless otherwise specified.

3. Where a narrative response is required, identify each document relied upon to support the Applicants' response in the narrative response.

4. Documents submitted in response to this information request that were or will be submitted both to the Commission and the U.S. Department of Justice must have the same Bates number and the same metadata.

5. Each responsive document shall be submitted in its entirety, even if only a portion of that document is responsive to an information request made herein. This means that the document shall not be edited, cut, or expunged, and shall include all appendices, tables, or other attachments, and all other documents referred to in the document or attachments. All written materials necessary to understand any document responsive to these information requests shall also be submitted.

6. Documents written in a language other than English must be translated into English; automated or machine translations are not permitted. Submit the foreign language document with the English translation attached.

7. Documents submitted in PDF should be OCR searchable whenever possible.

8. Data provided in response to this information request should be submitted in a machine readable format (e.g., Excel) and include a list of all parameters/assumptions on which the data are based.

9. Unless otherwise agreed to by the Commission, requests for the production of documents (and any particular type of document) require the production of all responsive documents in the possession, custody, or control of the Applicants.

10. For each statement submitted in response to an information request, indicate, by number and subsection, the specific request to which it is responsive.

11. For each document submitted in response to the information request, identify the Person(s) from whose files the document was retrieved (i.e., the custodian). For each document submitted, indicate, by number and subsection, the specific request(s) to which it is responsive. If any document is not dated, then if known, state the date on which it was prepared. If any document does not identify its author(s) or recipient(s), then provide, if known, the name(s) of the author(s) or recipient(s) as metadata in accordance with Instructions for the Electronic Production of Documents and Electronically Stored Information. The Applicant must identify with reasonable specificity all documents provided in response to these information requests. Where more than one identical copy of a requested document exists, the Applicant may submit only one representative copy, but in all cases all metadata, including without limitation all custodians who possessed identical documents withheld, must be provided in accordance with the provisions of Instructions for the Electronic Production of Documents and Electronically Stored Information.

12. For each inquiry in this information request, provide a list of which custodians are most likely to have relevant documents.

13. Describe the search methodologies and the applications used to execute the search conducted in response to this information request, including, if search terms were used to conduct all or any part of the search, a list of terms used.

14. Provide a glossary of industry and company terminology used in your responses, including project code words.

15. The specific information requests made herein are continuing in nature. The Applicants are required to produce in the future any and all documents and information that are responsive to the information requests made herein but not initially produced. In this regard, the Applicants must supplement their responses (a) if the Applicants learn that, in some material respect, the documents and information initially disclosed were incomplete or incorrect, or (b) if additional responsive documents or information are acquired by or become known to the Applicants after the initial production.

16. Any documents that are withheld in whole or in part from production based on a claim of privilege shall be assigned document control numbers (with unique consecutive numbers for each page of each document). For any page of any document that the Applicants have designated to be withheld as entirely privileged, they shall submit a substitute, placeholder page that lists only the Document ID of the page that was withheld in entirety as privileged and a statement indicating that the page has been withheld in entirety as privileged. For any document withheld as entirely privileged, it is sufficient to supply one substitute, placeholder page for that document, so long as the range of Document IDs for the entire document is listed on the placeholder page and each Document ID for each page of the document is reflected in metadata. The placeholder pages must be imaged as any other paper record, as described above. For each document withheld as privileged, whether in entirety or in part, each Applicant shall code the substitute document submitted as specified in and provide as metadata the information in the attached Metadata Table of Requested Fields.

17. For each document identified on the privilege log of each Applicant:

    a. Provide the document control number(s);
    b. Identify all authors of the document;
    c. Identify all addressees of the document;
    d. Identify all recipients of the document or of any copies of the document, to the extent not included among the document's addressees;
    e. Provide the date of the document;
    f. Provide a description of the subject matter of the document;
    g. State the nature or type of the privilege that the Applicant is asserting for the document (e.g., "attorney-client privilege");
    h. Provide the number(s) of the information request to which the document is responsive;
    i. Provide the document control number(s) of any attachments to the document, regardless of whether any privilege is being asserted for such attachment(s); and
    j. State whether the document has been produced in redacted form, and include the range of Document ID labels for those produced documents.

18. The Applicants' privilege logs shall also conform with all of the following requirements:

    a. Provide a separate legend identifying each author, addressee, and recipient identified on each Applicants' privilege log.
    b. Identify on the privilege log, and denote with an asterisk, all attorneys acting in a legal capacity with respect to the withheld document or communication.
    c. The description of the subject matter of each document shall describe the nature of the document in a manner that, though not revealing information that is itself privileged, provides sufficiently detailed information to enable the Commission to assess the applicability of the privilege claimed.
    d. For each document withheld under a claim that it constitutes or contains attorney work product, also state whether the Applicant asserts that the document was prepared in anticipation of litigation or for trial and, if so, specify the anticipated litigation or trial upon which the assertion is based.
    e. Produce all nonprivileged portions of any responsive document (including nonprivileged or redactable attachments) for which a claim of privilege is asserted, except where the only nonprivileged information in the document has already been produced. Note where any redactions in the document have been made.
    f. The privilege log shall be produced in both hardcopy and electronic form, the electronic form of which shall be both searchable and sortable.

g. Documents sent solely between counsel, including in-house counsel acting solely in a legal capacity, and documents authored by the Applicant's outside counsel that were not directly or indirectly furnished to any third party, such as internal law firm memoranda, may be omitted from the privilege log. However, any attachments to such documents must be included on the privilege log (if a privilege is applicable to such materials), unless such attachments are addressed and sent solely to counsel.

III. Initial Information and Data Request

A. General

1. List each Relevant Service provided by each Applicant, and for each:
   a. Provide a description of the service;
   b. State the division, Subsidiary, or Affiliate of the company that provides the service; and
   c. Describe how each Applicant defines the area in which it provides the service (*e.g.*, metropolitan statistical area, county).

2. For each Relevant Service listed in response to information request 1 above, for each year from 2014 to the present, and for each service area, state:
   a. Each Applicant's sales to all customers in the aggregate, separately for (i) enterprise customers and (ii) carrier customers;
   b. The name, address, telephone number, and contact Person for each Applicant's 20 largest customers by total revenues; and
   c. The name and address of each of the Applicants' competitors.

3. Provide one unredacted copy of each Hart-Scott-Rodino 4(c) document.

4. Submit all documents relating to allegations by any Person that any Applicant that provides any Relevant Service is not behaving in a competitive manner, including, but not limited to, customer and competitor complaints, threatened, pending, or completed lawsuits, and federal and state investigations.

5. For each Specified Service, submit (a) one copy of all current selling aids and promotional materials, and (b) all documents discussing advertising plans and strategies.

6. Submit all documents discussing each Applicant's plans relating to any Specified Service, including, but not limited to, business plans; short-term and long-range strategies and objectives; budgets and financial projections; expansion or retrenchment plans; research and development efforts; plans to reduce costs, improve services, introduce new services, or otherwise become more competitive; and presentations to management committees, executive committees, and boards of directors. For regularly prepared budgets and financial projections, each Applicant need only submit one copy of final year-end documents and cumulative year-to-date documents for the current year.

7. Submit all documents relating to competition in the provision of each Specified Service, including, but not limited to, market studies, forecasts and surveys, and all other documents relating to:
   a. The sales, market share, or competitive position of the Applicant or any of its competitors;
   b. The relative strength or weakness of companies providing each Specified Service;

c. Supply and demand conditions;
d. Sales negotiations and attempts by the Applicant to respond to competition;
e. The Applicant's analysis of, or response to, actual or potential competition or entry in each Relevant Service; and
f. Any actual or potential effect on the supply, demand, cost, or price of any Specified Service as a result of competition from any other possible substitute service.

8. Submit all documents created or received by the company that relate to each Applicant's transaction prices, price lists, pricing plans, pricing policies, pricing forecasts, pricing strategies, pricing analyses, and pricing decisions relating to any Specified Service.

9. To the extent not otherwise being provided, provide all documents created by or for the Applicants (either internally or by outside advisors) for the purpose of analyzing the effects of this Transaction with respect to: competition, diversity, consumer welfare, technology, cost savings, efficiencies, synergies, benefits, and profitability.

10. For each Applicant, provide a list of all Internet Interconnection Agreements, formal or informal, the Applicant has entered into with any Person located at an Internet exchange point (including CDNs, Edge Providers, Internet Access Service providers and Internet Backbone Services providers) that are currently in effect or entered into since Jan. 1, 2014. For each Person on the list, identify and describe in an Excel spreadsheet the following information: the effective dates of the agreement; Capacity; whether the Interconnection Agreement is Peering, Transit Service, or other (explain other); whether the traffic must be localized; the traffic ratio requirement, if any; the minimum required points of interconnection, if any; the financial terms associated with each Interconnection Agreement; and, for the most recent month for which such data is available, utilization, measured using the industry standard 95th percentile method, or the total capacity sold, if sold on a capacity basis.

11. Describe each Applicant's Internet backbone in the United States, including identifying each market and IP Point of Presence where each Applicant offers service, the Internet Backbone Services offered, and the terms of each service.

12. For each Applicant's 25 largest Transit Service customers by traffic volume, provide in an Excel spreadsheet, for each quarter since January 1, 2014:
a. The Interconnection Partner;
b. psage, measured using the industry standard 95th percentile method, or the amount of capacity if sold on a capacity (port) basis;
c. The price charged for the Internet Transit Service; and
d. The Quarterly revenues earned for each Transit Service separately charged to the Transit Service customers.

For each Transit Service customer that is invoiced for a combination of services, report in separate columns the revenues earned for each service (*e.g.*, Transit Service, Paid Peering) and provide an explanation for how the total invoiced amount is allocated across the services.

13. Describe, and provide and identify supporting documents showing each Applicant's position, rank, and competitive strategy in the Internet Backbone Services market and how each Applicant compares to other Internet Backbone Services providers, including a description of which entities each Applicant is most competitive with and the most significant market risks facing each Applicant.

14. Describe, and identify and produce all documents discussing how the acquisition of XO fits within and benefits the Verizon Internet Backbone Services business strategy and how XO's Internet Backbone Services business will be merged into Verizon's service offering.

15. Describe the extent to which XO and Verizon utilize fixed wireless technologies in connection with the provision of BDS, including the extent to which it is used in each county in which XO and Verizon provide BDS.

16. What additional products and services will Verizon be able to offer existing XO customers because of the transaction that are currently not offered by XO? What products and services will Verizon cease offering existing XO customers? Explain in each case whether the cessation would occur because of the Transaction, or on a materially accelerated timetable because of the Transaction, or if XO would have similarly ceased the service or product offering even in the absence of the Transaction.

17. Provide (a) a list of census blocks within Verizon's ILEC footprint; (b) a list of census blocks within Verizon's non-ILEC footprint; and (c) a list of census blocks into which Verizon's footprint will expand through the acquisition of XO's fiber assets. Indicate where any expansion reverses coverage loss Verizon experienced due to transactions or divestitures that occurred in the last three years.

18. In the Supplement at page 2, Applicants state that 691 XO Communications on-net buildings are located within Verizon's incumbent LEC footprint, and that 537 of these buildings "are on-net buildings for at least one other CLEC or cable company." In their Opposition at page 7, Applicants state that of the 691 buildings located within Verizon's incumbent LEC footprint, 690 buildings "are served by at least one other CLEC or cable company in addition to XO Communications." Please explain whether there are 537 buildings within Verizon's incumbent LEC footprint that are served by at least one CLEC or cable company other than XO Communications, or if there are 690 buildings within Verizon's incumbent LEC footprint that are served by at least one CLEC or cable company other than XO Communications, and explain the discrepancy between the two statements (if there is one).

19. Describe Verizon's post-closing plans concerning XO's services provided via Ethernet over Copper ("EoC"). In addition:
    a. Provide all documents in Verizon's or XO's possession that discuss XO's EoC-based service, including strategic plans, deployment plans, pricing, and competitive environment.
    b. Does Verizon plan to continue providing EoC-based service to existing purchasers everywhere it is currently available from XO?
    c. Will Verizon honor existing XO contracts or purchase arrangements for EoC service?
    d. Submit all documents discussing any planned, potential, or actual XO migration of its non-facilities-based connections to its own facilities (whether over XO's facilities or an indefeasible right of use).
    e. Describe the extent to which EoC is a competitive alternative to BDS provided over fiber and any other business broadband services provided by Verizon over fiber.

20. Describe Verizon's CLEC activities within its ILEC footprint and outside of its ILEC footprint. In addition:

a. Provide a list of each state in which Verizon continues to operate a CLEC Subsidiary or Affiliate and for each Subsidiary or Affiliate explain whether and how the activities of each Subsidiary or Affiliate will change after the completion of the transaction with XO.
b. Describe, and provide documents sufficient to show, the extent to which the acquisition of XO will affect Verizon's wholesale operations, offered services, and service terms for operations within and outside of its ILEC footprint.
c. Explain whether Verizon, in selling its ILEC assets in Florida, Texas and California, has leased back such facilities from Frontier in order to continue serving its customers, and whether such connections are included in the applicants' analyses regarding building overlap between Verizon and XO.

21. Within Verizon's ILEC footprint, will Verizon apply its current policy regarding special construction charges to assets acquired from XO? Describe in detail that policy, including the factors that Verizon weighs in determining when to charge, and how much to charge, for special construction charges when deploying fiber or other facilities in order to provide wholesale special access services to Competitive Providers requesting such services.

22. Describe the process (if any such process exists) by which XO currently provides number porting services to other entities, including interconnected VoIP providers and competitive wireless carriers. In addition:
a. Provide a list of entities in each market for whom XO provides access to numbering resources; and
b. Will the proposed transaction reduce the availability of XO as a provider of access to numbering resources for other entities or increase the price of such services? If so, to what extent?

23. Provide:
a. Documents sufficient to show the potential for cost savings, efficiencies, synergies, or benefits resulting from the Transaction. In addition:
i. Describe the steps Verizon will take to achieve these cost savings, efficiencies, synergies or benefits; the costs Verizon will incur to achieve them; the risks involved in achieving them; the underlying assumptions on how to achieve them; and the time required to achieve them, including whether they are primarily short-term or long-term.
ii. Explain whether these cost savings, efficiencies, synergies or benefits will represent savings in fixed costs or marginal costs, and describe the assumptions underlying your response to this information request.
A. Provide an estimate of the annual cost savings, efficiencies, synergies, benefits, and risks attributable to the Transaction for each of the first five years after closing, and an explanation of whether they will have a one-time or recurring effect;
B. Provide a detailed explanation of the underlying assumptions and the methodology used to estimate the annual cost savings, efficiencies, synergies, cost savings, benefits, and risks attributable to the Transaction within the first five years after closing;
C. Describe and explain in detail and provide documents sufficient to show Verizon's plans to pass through any cost savings from the Transaction to consumers and the extent to which Verizon has passed through past cost savings to consumers; and

iii. Provide documents sufficient to show the details, and calculations supporting Applicants' claim that the synergies of the Transaction will result in total expense savings greater than $1.5 billion on a net present value basis.

iv. For each cost saving, efficiency, synergy, or benefit that you identify, please describe, explain, and produce and identify documents sufficient to show: (A) each alternative to the Transaction that Verizon considered to achieve any of the claimed cost savings, efficiencies, synergies, or benefits; (B) how these cost savings, efficiencies, synergies, or benefits are directly related to the Transaction, and (C) why these cost savings, efficiencies, synergies, or benefits could not be achieved by Verizon without the Transaction.

b. For each new or improved product or service that Verizon claims it will be able to offer as a result of the Transaction, describe and explain in detail and produce all documents sufficient to show the amount that Verizon will need to invest and spend to provide the new or improved product or service and identifying each element of the cost and expenditure, including but not limited to, research, development, licensing fees, equipment, and manufacturing costs.

c. An explanation of what metrics or thresholds Verizon will use to determine whether actual cost savings, efficiencies, synergies, or benefits are consistent with its model, as well as what Verizon's plans are to address deviations from its model.

d. A copy of all documents, data, spreadsheets, models, and underlying assumptions prepared expressly for Verizon (whether prepared internally or by outside advisors) that were used to prepare any response to this information request.

24. Provide a detailed explanation of and copies of documents sufficient to support (including but not limited to any analyses of or assumptions and/or data supporting) the following Verizon claims:

a. By gaining access to XO's fiber-based IP and Ethernet networks, the Transaction will "allow Verizon to expand and improve the services Verizon Enterprise Solutions ("VES") provides to enterprise and wholesale customers, particularly in areas outside of Verizon's remaining ILEC footprint."

b. The Transaction will improve Verizon's ability to serve multi-location enterprise customers and "more effectively compete with leading national and regional high-capacity service providers—especially cable companies, but also traditional incumbent and competitive telephone companies, wireless providers, and other non-traditional players, particularly in central business districts."

i. Describe in detail and provide documents sufficient to show which multi-location businesses Verizon will be able to provide business services to that it would have been unable to serve prior to the Transaction. In your description, please provide detailed information about the scale or characteristics of these potential customers, by geographic unit (such as DMA or MSA) or by each individual business, such as: revenues, proportion of the market, and how revenues that could be earned from the potential customers compare to Verizon's total business services revenues.

ii. Describe in detail and provide documents sufficient to show how many of XO's 20,000 fiber route miles of national inter-city networks, and 5,600 fiber route miles of metro fiber, are located within Verizon's ILEC footprint, and how much are in each of XO's Top 20 Fiber Areas identified in Exhibit 2 to the Applicants' Supplement.

iii. Describe in detail, provide documents sufficient to show, and identify, in each of XO's top 20 fiber areas, the amount of fiber currently leased by Verizon and the

amount of fiber to be acquired from XO. Explain how owned fiber improves service to multi-location enterprise customers as compared to leased fiber.

c. "[T]he transaction will benefit wireless consumers by enhancing network capacity and reliability, as Verizon will acquire more fiber for backhaul to serve and fuel its increasingly dense wireless broadband network. This fiber backhaul will support the speedy development and deployment of 5G technology."

d. "In addition, Verizon will be able to offer existing XO Communications customers additional products and services not currently available through XO."

e. Verizon assertion that it will continue to provide service and comply with XO's "contractual and regulatory obligations to its customers, so that the transaction will be seamless to those customers."

f. "Verizon has the economy of scale to invest in and support" the fiber networks being purchased from XO, including "through achieving synergies as part of this transaction."

25. Provide all documents cited in the Applicants' Public Interest Statement in support of the Transaction's claimed benefits, as well as any data or competitive analyses relied upon in preparing that document, grouped by benefit.

B. BDS Data Collection

Instructions solely as to this subsection:

- Capitalized terms that are defined in the BDS Mandatory Data Collection (the "Data Collection"), available at http://transition.fcc.gov/wcb/Data_Questions091514.pdf, have the same meaning as defined therein.
- Comply with all instructions, to the extent applicable, in section III of the Instructions for Data Collection for Special Access Proceeding, available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-330865A2.pdf.
- In the event of a conflict between definitions in the Data Collection and definitions in section I of this information request, the definitions in the Data Collection shall control.
- If an Applicant provided a unique ID for a *Location* in response to the Data Collection, use the same unique ID for the same *Location* in response to the questions below. If an Applicant identifies the same *Location* in response to multiple questions below, use the same unique ID in each case.
- Information provided in response to questions regarding bandwidth amounts sold to a *Location* for bandwidth amounts above 1 Gbps shall merely say "above 1 Gbps."
- Information provided in response to questions 27-29 that is the same information requested in question 26 should use same field name and type as used in question 26.

26. Separately for each Applicant, answer the following questions in the Data Collection (inclusive, where applicable, of all lettered sub-questions that fall within the numbered question specified), in each case where applicable substituting "as of May 31, 2016" for "during 2013" and, where no date is specified, providing information as of May 31, 2016:

    - II.A.3
    - II.A.4, except that (a) notwithstanding the text of II.A.4(c), the geocode for the *Location* (i.e., latitude and longitude) must be provided in each case; and (b) Applicants need not respond to question II.A.4(d).

27. Provide the information requested below for each *Location* to which Verizon had a *Connection* as of May 31, 2016, where all of the following are true: (a) Verizon was a *Competitive Provider*;

and (b) the *Location* in question was within 1,000 meters or fewer of another *Location* to which XO had a *Connection* as of May 31, 2016:

a. As to Verizon:
   i. A unique ID for the *Location*;
   ii. The actual situs address for the *Location* (i.e., land where the building or cell site is located);
   iii. The geocode for the *Location* (i.e., latitude and longitude); and
   iv. The total sold bandwidth of the *Connection* provided by you to the *Location* in Mbps.

b. As to each *Location* to which XO had a *Connection* that was within 1,000 meters or fewer of the *Location* identified in response to sub-question a above:
   i. A unique ID for the *Location*;
   ii. The actual situs address for the *Location* (i.e., land where the building or cell site is located);
   iii. The geocode for the *Location* (i.e., latitude and longitude) if kept in the normal course of business, otherwise providing this information is optional; and
   iv. The total sold bandwidth of the *Connection* provided by you to the *Location* in Mbps.

For purposes of this question 27, each reference to a *Connection* encompasses only a *Connection* where all of the following are true: (a) any of the *Connection* to the *Location* was provided using fiber; and (b) the *Provider* (i) owned the *Connection* or (ii) leased the *Connection* from another entity under an *IRU* agreement. The phrase "within 1,000 meters or fewer" encompasses a *Connection* to the same *Location*.

28. Provide the information requested below for each *Location* to which XO had a *Connection* as of May 31, 2016, where all of the following are true: (a) any of the *Connection* to the *Location* was provided using fiber; (b) XO either (i) owned the *Connection* or (ii) leased the *Connection* from another entity under an *IRU* agreement; and (c) the *Location* is within Verizon's *ILEC* footprint.
   a. A unique ID for the *Location*;
   b. The actual situs address for the *Location* (i.e., land where the building or cell site is located);
   c. The geocode for the *Location* (i.e., latitude and longitude); and
   d. The total sold bandwidth of the *Connection* provided by you to the *Location* in Mbps.

29. For each *Location* identified in response to either (or more than one of or all of) questions 27.a, 27.b, or 28 above, provide the following information as of May 31, 2016:
   a. The number of distinct *Providers* (excluding Verizon, XO, or any Affiliates of either) that had a *Connection*, within 1,000 meters or fewer of such *Location*;
   b. The name of each such *Provider*;
   c. The distance of such *Provider's Connection* from the nearest XO or Verizon *Connection*; and
   d. The unique ID of such nearest XO or Verizon *Connection*, if provided in response to one or more of questions 27-28 above.

For purposes of this question, each reference to a *Connection* encompasses only a *Connection* where all of the following are true: (a) any of the *Connection* to the *Location* was provided using fiber; and (b) the *Provider* (i) owned the *Connection* or (ii) leased the *Connection* from another entity under an *IRU* agreement.

30. If an Applicant's method of answering any of the requests in this sub-section B differs from its method of answering analogous questions in response to the Data Collection, describe those differences in methodology and the reasons for such differences.

Instructions for the Electronic Production of Documents and Electronically Stored Information

I. Introduction

This document contains the standard specifications and procedures for submitting to the Federal Communications Commission (FCC) the electronic versions of documents in response to information and data requests.

A. In many cases, it is useful for the party producing the documents, its vendor, and the FCC staff to review the technical details of the production prior to submitting the response.

B. Take care to ensure that all responsive data and metadata are preserved in the collection process.

C. Submit two copies of the response: file one copy in the docket with the Secretary's Office and provide one copy to FCC staff or the FCC's contractor, as directed, for loading and review.

II. Categories of Documents

There are seven major categories of relevant documents: (1) email and other electronic messages (*e.g.*, instant messaging, text messages); (2) other electronic documents; (3) hard-copy documents; (4) shared resources; (5) databases; (6) audio and video data; and (7) foreign-language materials. Typically, responsive documents will come from the first four categories, although databases will be used to respond to data requests. The general requirements for each category of document are outlined below. The attached Metadata Table of Requested Fields provides information regarding document-specific metadata and bibliographic information (identifying information).

A. Email, Attachments, and Other Electronic Messages

Email and other electronic messages (*e.g.*, instant messages (IMs), text messages) should be produced as image files with related searchable text, metadata, and bibliographic information. Depending on how the company's systems represent names in email messages, IMs, or text messages, we may require a table of names or contact lists from custodians.

Each IM or text conversation should be produced as one document.

Email repositories, also known as email databases (*e.g.*, Outlook .PST, Lotus, .NSF), can contain a variety of items, including messages, calendars, contacts, tasks, etc. For purposes of production, responsive items should include the "Email", "Other ESI", or "Calendar Items" metadata/database fields outlined in the Metadata Table, including but not limited to, all parent items (mail, calendar, contacts, tasks, notes, etc.) and child files (attachments of files to email or other items), with the parent/child relationship preserved. Similar items found and collected outside an email repository (*e.g.*, .MSG, .EML, .HTM, .MHT) should be produced in the same manner.

Graphic objects embedded in emails such as logos, letterheads, or backgrounds should remain as part of the email and not be extracted as separate attached documents.

Pay special attention to the PARENTID, ATTACHMENTIDS, and FAMILYRANGE fields, which are used to track email families. While the example below relates to email families, all attachment relationships for all responsive documents are to be produced in this format.

EXAMPLE: Consider ABC-JD-00000001, a 10-page parent email, with records ABC-JD-00000011 to ABC- JD-00000015, ABC-JD-00000016 to ABC-JD-00000020, and ABC-JD-00000021 to ABC-JD-00000025 as its attachments. Fields should be populated exactly as follows using the semicolon as the multi-entry delimiter for ATTACHMENTIDS:

BEGDOC#	ENDDOC#	PARENTID	ATTACHMENTIDS	FAMILYRANGE
ABC-JD-00000001	ABC-JD-00000010	ABC-JD-00000001	ABC-JD-00000011; ABC-JD-00000016; ABC-JD-00000021	ABC-JD-00000001 – ABC-JD-
ABC-JD-00000011	ABC-JD-00000015	ABC-JD-00000001		ABC-JD-00000001 – ABC-JD-
ABC-JD-00000016	ABC-JD-00000020	ABC-JD-00000001		ABC-JD-00000001 – ABC-JD-
ABC-JD-00000021	ABC-JD-00000025	ABC-JD-00000001		ABC-JD-00000001 – ABC-JD-

B. Electronic Documents

Electronic documents include word-processing documents, spreadsheets, presentations, and all other electronic documents not specifically discussed elsewhere. Production of these items should include image files with related searchable text, metadata, and bibliographic information. All passwords and encryption must be removed from electronic documents prior to production. Note that the following apply to both attachments of files to email or other items and loose native files:

1. *Spreadsheets*: Spreadsheets should be produced in native format (*e.g.*, as .XLSX files), with searchable text for the entire document, metadata, and bibliographic information. Provide only a single image of the first page of the spreadsheet or provide a single placeholder image. The placeholder image must contain at a minimum the BEGDOC#, FILENAME, and FILEPATH. The Identification range for a spreadsheet should be a single number (*e.g.*, ABC-JD-00000001 – ABC- JD-00000001). The linked native file name should match the BEGDOC#/DOCID with the appropriate file extension.

2. *Presentations*: Presentations should be produced in full slide image format along with speaker notes (which should follow the full images of the slides) with related searchable text, metadata, bibliographic information, and linked native file. Presentations should also be produced in native format (*e.g.*, as .PPT files). The linked native file name should match the BEGDOC#/DOCID with the appropriate file extension.

3. *Hidden Text.* All hidden text (*e.g.*, track changes, hidden columns, hidden slides, mark-ups, notes) shall be expanded and rendered in the extracted text file. For files that cannot be expanded, linked native files shall be produced with the image files.

4. *Embedded Files.* All embedded objects (*e.g.*, graphical files, Word documents, Excel spreadsheets, .wav files) that are found within a file shall be produced so as to maintain the integrity of

the source document as a single document. For purposes of production, the embedded files shall remain embedded as part of the original source document. Hyperlinked files must be produced as separate, attached documents upon request. Any objects that cannot be rendered to images and extracted text (*e.g.*, .wav, .avi files) must be produced as separate extracted files with linked native files and placeholder images and be treated as attachments to the original file.

5. *Image-Only Files.* All image-only files (non-searchable .PDFs, multi-page TIFFs, Snipping Tool screenshots, etc., as well as all other images that contain text) shall be produced with associated OCR text, metadata, and bibliographic information.

6. *Proprietary File Types and Non-PC or Non-Windows Based Systems.* Proprietary file types, such as those generated by financial or graphic design software, should be discussed with FCC staff in advance of production to determine the optimal format of production. Also, file types from non-PC or non-Windows based systems (*e.g.,* Apple, UNIX, LINUX systems), should be discussed with FCC staff in advance of production to determine the optimal format of production.

7. *Archive File Types.* Archive file types (*e.g.,* .zip, .rar) must be uncompressed for processing. Each file contained within an archive file should be produced as a child to the parent archive file. If the archive file is itself an attachment, that parent/child relationship must also be preserved.

8. *Processing Errors.* The text of the placeholder image should also be contained in the searchable text of the document in the event of uncorrectable processing errors.

C. Hard-Copy (or Paper) Documents

Hard-copy documents are to be produced as black-and-white image files, except where noted below, with related searchable OCR text and bibliographic information. Special attention should be paid to ensure that hard-copy documents are produced as they are kept, reflecting attachment relationships between documents and information about the file folders within which each document is found. In addition, multi-page documents must be produced as single documents (*i.e.*, properly unitized) and not as several single-page documents. Where color is required to interpret the document, such as hard copy photos and certain charts, that image must be produced in color. These color images are to be produced as .jpg format. Hard-copy photographs should be produced as color .jpg format files, if originally in color, or black-and-white .tif files if originally in black-and-white.

D. Shared Resources

Shared Resources should be produced as separate custodians, if responsive custodians have access to them or if they contain responsive documents. The name of the group having access would be used as the custodian name, *i.e.,* Marketing Execs or Accounting Dept. The company will provide separately a brief description of each shared resource that includes a list of the custodians who have access to that shared resource.

E. Database Productions

Production of enterprise databases are not addressed in these specifications and must be discussed with the appropriate FCC legal and technical staff to determine the optimal production format; these will usually fall outside the scope of an image-based production. Care must be taken to ensure that all responsive databases and their metadata are preserved.

F. Audio/Video Data

These specifications do not address the production of audio/video data. Care must be taken to ensure that all responsive audio/video data and their metadata are preserved. These data types may be stored in audio or video recordings, voicemail text messaging, and related/similar technologies. However, such data, logs, metadata, or other files related thereto, as well as other less common but similar data types, should only be produced after consultation with and consent of FCC staff as to the format for the production of such data.

G. Foreign-Language Materials

Foreign language materials should be produced after consultation with FCC staff.

III. De-duplication

Before doing any de-duplication, provide FCC staff with a written description of the method used to de-duplicate (including which elements are compared and what hash codes are used), and what is considered a duplicate. Then confirm that your approach is acceptable to the FCC. The FCC does not allow de-duplication of hard-copy documents, or that of "loose" electronic documents (*e.g.,* presentation slides located on the custodian's C: drive), against email attachment versions of those same documents. The integrity of any produced email and any related "document family" must be maintained except as limited by any claim of privilege. Email attachments may not be de-duplicated against attachments in other email families. De- duplication should occur both vertically within each custodian and horizontally across custodians. Vertical de-duplication is crucial when a production includes electronic documents from back-up tapes. Horizontal de-duplication must be done in a way that preserves (and produces) information on blind copy (Bcc) recipients of emails and other custodians whose files contain the duplicates that will be eliminated from the production as well as original filepath and mailbox folder information.

Custodian Append File. A Custodian Append file is to be produced when de-duplicating ACROSS custodians (*i.e.,* horizontal de-duplication) and data is produced on a rolling basis. The file must be provided on an incremental basis starting with the second submission; as more custodians are discovered for previously produced documents, this file is updated with only the new custodian information. The Custodian Append File is a four-field delimited file consisting of the DOCIDs of the previously delivered document, the new custodian names, the Filepath(s) prepended with Custodian Name (multi-entry), and the FolderLabel(s) prepended with Custodian name (multi- entry) for the duplicates of those records that would otherwise have been produced in the subsequent (new) submissions.

These specifications do not allow for near de-duplication or email threading. These forms of de-duplication must be discussed separately with FCC staff and consent obtained prior to the use of such techniques for production.

IV. Document Numbering

Except where inconsistent with Instruction 4, the directions in the paragraph below apply to document numbering. In the event of a conflict between the directions below and Instruction 4, Instruction 4 controls.

Documents must be uniquely and sequentially numbered across the entire production, with an endorsement burned into each image. Each number shall be of a consistent length, include leading zeros in the number, and unique for each produced page. Numbers should contain no more than three segments

connected by a hyphen. The leading segment must be the company identifier, a middle segment identifying the custodian, and a sequential page counter with connecting hyphens (*e.g.*, ABCCO-CEO-00000001). The number of digits in the numeric portion of the format should not change in subsequent productions, nor should spaces, hyphens, or other separators be added or deleted. Under no circumstances should Identification numbers contain embedded spaces, slashes (/), backslashes (\), carats (^), underscores (_), ampersands (&), hash marks (#), plus signs (+), percent signs (%), dollar signs ($), exclamation marks (!), pipes (|), any character used as a delimiter in the metadata load files, or any character not allowed in Windows file-naming convention (, \ / : * ? " < > | ~ @ ^).

V. Privilege Designations

Documents redacted pursuant to any claim of privilege will be designated "Redacted" in the EPROPERTIES field as described in the Metadata Table. Appropriately redacted searchable text (OCR of the redacted images is acceptable), metadata, and bibliographic information must also be provided.

All documents that are part of a document family that includes a document withheld pursuant to any claim of privilege will be designated "Family Member of Privileged Doc" in the EPROPERTIES field as described in the Metadata Fields table for all other documents in its family. Placeholder images with BEGDOC#, FILENAME, FILEPATH and reason withheld (*e.g.*, "Privileged") should be provided in place of the document images of the privileged document.

VI. Sample

Before beginning production, a sample production covering files of all types, including emails with attachments, loose files including spreadsheets and presentations, redacted documents, etc., should be provided, as directed by FCC staff. The sample size should be between 500 to 1000 records to be large enough to be representative and small enough to review quickly. The FCC will take a few business days to evaluate the sample and provide feedback. If there are any problems, corrected samples will need to be resubmitted until the FCC can confirm the problems are resolved.

VII. Load File Set/Volume Configuration

Each production must have a unique MEDIAID name associated with it. This MEDIAID name must also appear on the physical label. The MEDIAID naming scheme should start with a 2 or 3 letter prefix identifying the Applicant followed by a 3-digit counter (*e.g.*, ABC001). Each separate volume delivered on that media must also have a separate VOLUMENAME associated with it. On the root of the media, the top level folder(s) must be named for the volume(s).

VOLUMENAME(s) should also be indicated on the physical label of the media. The volume naming scheme should be based on the MEDIAID name followed by a hyphen, followed by a 3-digit counter (*e.g.*, ABC001-001). Load file volumes should be as large as practical, but not contain more than 100,000 records each. The VOLUMENAME should increase sequentially across all productions on the same MEDIAID.

Under the VOLUMENAME folder, the production should be organized in four subfolders:

1. DOCLINK (contains linked native files, may contain subfolders, with no more than 5,000 files per folder);
2. IMAGES (may contain subfolders, with no more than 5,000 image files per folder);
3. FULLTEXT (may contain subfolders, with no more than 5,000 document-level text files

per folder); and

4. LOADFILES (should contain the metadata, DII, OPT, LST, and custodian append files).

VIII. Deliverables

A submission index spreadsheet must be delivered with each submission and should provide statistical information about the volume(s) and media produced. Provide this in hard copy format and electronically on the deliverable media. A sample is included in this PDF.

It is expected that all productions will conform to the structure of the final, approved sample production. Any changes to production procedures that alter output format will require prior submission of another sample production as outlined in section 5 (Sample).

The FCC accepts electronic productions loaded onto hard drives, CD-ROMs, or DVD-ROMs; however, production on hard drives minimizes costs and delay and is preferable. Where the size of the production exceeds the capacity of a single DVD-ROM, hard drives should be used as the delivery medium. For each piece of media a unique identifier (MEDIAID) must be provided and must be physically visible *on the exterior* of the physical item.

If the media is encrypted, supply the tool for decryption on or with the same media, as well as instructions for decryption. Provide the password separately.

All documents produced in electronic format shall be scanned for, and free of, viruses. The FCC will return any infected media for replacement, which may affect the timing of the company's compliance with the FCC's information and data requests.

The FCC does not accept load file productions via email or those that are posted on download sites (*e.g.*, FTP, secure server).

The FCC recognizes that occasionally unforeseen issues will arise that require replacing documents or data from a previously delivered production with new documents or corrected data. Substantive corrections may require the reproduction of the entire production volume. The production format for all corrections must be agreed upon prior to any submission of corrections. Any productions that have been created but not delivered when the need for corrections is detected must be corrected prior to delivery. Each replacement or corrected production must be named based on the production volume that is being replaced or corrected. For example, if a corrected metadata file replaces data in the previously delivered volume ABC-001-001 then the file name ABC-001-001-fix.txt should be used. Likewise, replacement document image file names must be labeled with the same Identification number as the image being replaced. A separate correcting file is required for each volume to be corrected. These replacement or corrected productions must be delivered on separate media from any new productions. In the event that corrections alter the statistical information previously reported in the cover letter spreadsheet, an updated submission index spreadsheet with the corrected final statistical information must accompany each replacement or corrected submission. Provide this in hard copy format and electronically on the deliverable media.

METADATA TABLE OF REQUESTED FIELDS

An "X" indicates that the field should be populated in the load file produced. "Other ESI" includes non-email files, such as, but not limited to MS Office files, WordPerfect files, etc.

Field Name	Field Description	Field	Hard-Copy	Email	Other ESI	Calendar Items
COMPANIES	Company submitting data	Multi-Note	X	X	X	X
MEDIAID	The unique identifier on the physical piece of media (*e.g.*, ABC001)	Note	X	X	X	X
VOLUMENAME	Production volume number (*e.g.*, ABC001-001)	Note	X	X	X	X
CUSTODIAN	Custodian(s) / source(s) -- format: *Last, First* or *ABC Dept.* Be consistent across all ESI sources/productions.	Multi-Note	X	X	X	X
TIMEZONE	The TimeZone in which the custodian is located.	Note		X	X	X
SPEC#	Subpoena/request paragraph number to which the document is responsive	Multi-Note	X	X	X	X
HASHMD5	Document MD5 hash value (used for deduplication or other processing)	Note		X	X	X
HASHSHA	Document SHA1 hash value (used for deduplication or other processing)	Note		X	X	X
SEARCHVALUES	List of search terms used to identify record as responsive (if used)	Multi-Note	X	X	X	X
BEGDOC#	Start Identification number (including prefix) -- No spaces or special characters	Note	X	X	X	X
ENDDOC#	End Identification number (including prefix) -- No spaces or special characters	Note	X	X	X	X
DOCID	Must equal the value appearing in the BEGDOC# field and be UNIQUE	Note	X	X	X	X
NUMPAGES	Page count	Integer	X	X	X	X
PARENTID	Parent record's BEGDOC#, including prefix (populated ONLY in child records)	Note	X	X	X	X
ATTACHMENTIDS	Child document list: BEGDOC# of each child (populated ONLY in parent records)	Multi-Entry	X	X	X	X
FAMILYRANGE	Range of the BEGDOC# value of the parent record to the ENDDOC# value (including prefix) of the last child record (for example, ABC-JD-00001201 - ABC-JD-00001220); populated for all documents in the group. Empty if the record is NOT in family grouping	Note	X	X	X	X
EPROPERTIES	Indicate all that apply : Record Type: E-Doc, E-Doc Attachment, Email, Email Attachment, Hard Copy, Calendar Appt Other Notations: Translation of [DOCID of original], Translated as [DOCID of Translation] Privilege Notations: Redacted, Privileged, Family Member of Priv Doc	Multi-Entry	X	X	X	X
FOLDERLABEL	Email folder path (sample: Smith,James-Inbox\Active); or Hard Copy folder/binder title/label prepended with Custodian Name.	Multi-Note	X	X		X
FROM	Author of the Email or Calendar item (as formatted on the original)	Note		X		X
TO	Recipients of the Email or Calendar Item (as formatted on the original)	Multi-Note		X		X
CC	Names of the individuals who were copied on the Email or Calendar Item (as formatted on the original)	Multi-Note		X		X
BCC	Names of the individuals who were blind-copied on the Email or Calendar Item (as formatted on the original)	Multi-Note		X		X
SUBJECT	Email or calendar subject	Note		X		X
DATE_HC	Date of hard copy documents, if coded. Format: YYYYMMDD.	Date	X			
DOCDATE	This is a multipurpose date field. Populate with: DATESAVED for E-Docs; DATESENT for Emails; DATEAPPTSTART for calendar appointments; DATE_HC for hard copy documents, if available. Format: YYYYMMDD.	Date	X	X	X	X
DATECREATED	Date electronic file was created. Format: YYYYMMDD.	Date			X	
DATESENT	Date the Email or Calendar Item was sent. Format: YYYYMMDD.	Date		X		X
TIMESENT	Time Email or Calendar Item was sent -- Format: HH:MM:SS (use 24 hour times, *e.g.*, 13:32 for 1:32 pm; timezone indicators cannot be included)	Time		X		X
DATERECEIVED	Date Email or Calendar Item was received. Format: YYYYMMDD.	Date		X		X
TIMERECEIVED	Time Email or Calendar Item was received. Format: HH:MM:SS (use 24 hour times, *e.g.*, 13:32 for 1:32 pm; timezone indicators cannot be included)	Time		X		X
HEADER	The internet header information for Email sent through the internet;	Note		X		

+

Field Name	Field Description	Hard-copy	Other ESI	Calendar Items
INTERNETMSGID	Globally unique identifier for a message which typically includes messageid and a domain name. Example: <0E6648D558F338179524D555@m1p.innovy.net	Note	X	X
MESSAGEID	Unique system identification number for the e-mail message assigned by the proprietary email database/mailstore/post office file associated with centrally managed enterprise email servers. EntryID for Microsoft Outlook, the UniqueID (UNID) for Lotus Notes, or equivalent value for other proprietary mailstore formats.	Note	X	X
INREPLYTOID	Internet message ID of the Email replied to	Note	X	
CONVERSATIONINDEX	Email Thread Identification	Note	X	X
IMPORTANCE	Email flag indicating priority level set for message	Note	X	X
DELIVRECEIPT	Delivery receipt request notification for Email messages	Note	X	X

Submission Index Spreadsheet for ABC Company Production

Matter: ABC's Acquisition of XYZ

Custodian	Physical Media Name	Volume Name	Begin I.D. Number	End I.D. Number	Intentionally Left Blank	Number of Records	Number of Images	Number of Native Files	Number of Extracted/ OCRed Text Files	Volume Siz ein GB	Date Produc
Doe, John K.	ABC001	ABC001-001	ABC-JKD-	ABC-JKD-		258	5825	13	258		
Doe, Jane B.	ABC001	ABC001-001	ABC-JBD-	ABC-JBD-		365	3,711	52	362		
					TOTALS FOR THIS VOLUME	**623**	**9,536**	**65**	**621**		mm/dd/yy
Daniels, James	ABC001	ABC001-002	ABC-JAD-	ABC-JAD-		1,150	5,727	156	1,149		
Wise, Barry	ABC001	ABC001-002	ABC-BLW-	ABC-BLW-		600	3,010	20	598		
					TOTALS FOR THIS VOLUME	**1,750**	**8,737**	**176**	**1,750**		mm/dd/yy
Brown, Charlene	ABC002	ABC002-001	ABC-CJB-	ABC-		1,315	6,952	68	1,310	1.02	mm/dd/yy
Mahan, Freda	ABC002	ABC002-001	ABC-FRM-00000001 ABC-FRM-00000698	ABC-FRM-00010400 ABC-00000982		2,023	10,115	85	2,023	2.00	mm/dd/yy
					TOTALS FOR THIS VOLUME	**3,338**	**17,067**	**153**	**3,333**	**2.02**	
					GRAND TOTALS	**5,711**	**35,340**	**394**	**5,704**	**2.02**	

*** This spreadsheet can be provided on a current production-specific or a cumulative production basis, but the totals per *volume* must be provided**

**** This spreadsheet is a sample of format and does not reflect the names/Identification numbers of the sample files provided**

***** Volume size is actual space used not total available space on the delivery media**