

AT&T INFORMATION AND DISCOVERY REQUESTS
MB Docket No. 14-90

1. Produce:

a. one copy of each organization chart and personnel directory in effect since January 1, 2012 for the Company as a whole and for each of the Company's facilities or divisions involved in any activity relating to any Relevant Service;

b. a list of the name, title, and last known address and telephone numbers of each former and current employee of the Company who has had management-level responsibility for the development, pricing, sales, marketing, or distribution of any Relevant Service; and

c. a list of all agents and representatives of the Company, such as attorneys, consultants, investment bankers, product distributors, and sales agents, retained by the Company in any capacity relating to the Transaction or to the development, marketing, or sales of any Relevant Service (excluding those agents and representatives retained solely in connection with environmental, tax, human resources, pensions, benefits, ERISA, or OSHA issues).

2. Identify, in CSV or Excel format, each zip code in which the Company provides MVPD Service, Internet Access Service, or Telephony Service, and for each zip code state:

a. DMA names and numbers associated with the zip code;

b. any internal Company operating entity names and codes associated with the zip code; and

c. the wire centers and distribution areas associated with the zip code, if applicable.

3. For each zip code identified in response to Request 2, for the time period beginning January 1, 2012 to June 30, 2014, describe the Company's:

a. MVPD Service, including each service tier or programming package offered and the channels (both standard definition and high definition) on each tier or package, including the overall percentage of each DMA that is reached by the particular service tier or programming package;

b. Internet Access Service, including each tier or package offered and the upstream and downstream speed associated with each such tier or package; and

c. Telephony Service.

4. Submit all maps, plots, or other visual aids, in electronic format, that depict where the Company or any of its competitors has the ability to offer MVPD Service, Internet Access Service, or Telephony Service.

5. For each zip code and DMA identified in response to Request 2, and for (i) each MVPD Service tier or programming package; (ii) each Internet Access Service tier or package; and (iii) Telephony Service as a whole, and separately for residential and other customer locations and subscribers,

identify separately for each month from January 1, 2012 to June 30, 2014 and produce in CSV or Excel:

- a. the number of customer locations to which the service or package is available;
 - b. the percent penetration for the service or package;
 - c. the number of new subscribers acquired, and the average revenue per subscriber acquired (or data sufficient to determine those figures);
 - d. the number of subscribers that discontinued service, and the average revenue per customer lost (or data sufficient to determine those figures);
 - e. the churn rate;
 - f. the number of continuing subscribers, and the average revenue per continuing subscriber (or data sufficient to determine those figures);
 - g. the percentage of the company's subscribers that Subscribe to: MVPD Service only; Internet Access Service only; Telephony Service only; Internet Access Service and Telephony; MVPD Service and Internet Access Service; MVPD Service and Telephony Service; and MVPD Service and Internet Access Service and Telephony Service;
 - h. the price of MVPD, Internet Access Service, and Telephony Service if taken separately, the price of the services if taken as part of a bundle and any other terms and conditions of each service or bundle (e.g., term commitments);
 - i. whether any special price or other promotion was being offered to existing, new or former subscribers for service at that time and, if so, state the special price, the terms upon which it was conditioned (e.g., retention of service for a specified time period), and the number of subscribers who accepted the special offer;
 - j. the total of each other recurring itemized fee paid by a subscriber of each service in addition to the price (e.g., digital video recorder ("DVR") service, set-top box rental, modem) and a description of each recurring itemized fee, excluding taxes and regulatory charges passed on to the subscriber;
 - k. the per-subscriber acquisition cost;
 - l. the cost per subscriber to the Company of Video Programming;
 - m. the cost per subscriber to the Company of each channel (both standard and high definition) offered on any of the Company's MVPD Service tiers or packages;
 - n. the value of each additional subscriber to the Company, including a description of how the Company arrived at that value; and
 - o. each other Person who offers services that compete with the service or package.
6. For the Company state, separately for each month from January 1, 2012 to June 30, 2014:

- a. the number of customer locations at the end of the month for which MVPD Service, Internet Access Service and Telephony Service is available, separately for each service and separately for residential and other customer locations;
 - b. the number of subscribers to Standalone Services and Bundled Services at the end of the month, separately for residential and other subscribers;
 - c. the number of subscribers beginning a subscription or terminating a subscription to MVPD Service, Internet Access Service, or Telephony Service during the month, separately for each service and separately residential and other subscribers;
 - d. the average revenue per subscriber to Standalone Services and Bundled Services at the end of the month, separately for residential and other subscribers; and
 - e. the total cost of Video Programming carried on the Company's MVPD Service.
7. For the Company, state, and produce in CSV or Excel format, separately for every subscription Video-on-Demand (VOD) service offered by the Company, and for every month from January 1, 2012 to June 30, 2014:
 - a. the number of subscribers at the end of the month, separately for residential and other subscribers;
 - b. the number of subscribers that added the service, separately for residential and other subscribers;
 - c. the number of subscribers that dropped the service, separately for residential and other subscribers;
 - d. total subscription revenue, separately for residential and other subscribers;
 - e. the total cost of Video Programming carried on the Company's MVPD Service that is made available for subscription VOD; and
 - f. the total number of hours viewed, separately for residential and other subscribers.
8. For the Company, state, separately for the Company's paid VOD, free VOD and Pay Per View (PPV) services, for every month from January 1, 2012 to June 30, 2014:
 - a. the number of subscribers that used the service at least once, separately for residential and other subscribers;
 - b. the total revenues generated by subscribers, separately for residential and other subscribers, if applicable;
 - c. the total number of hours viewed, separately for residential and other subscribers; and
 - d. the total cost of Video Programming carried on the Company's MVPD Service that is made available for paid VOD, free VOD and PPV services.
9. For the Company's OVD service available to its MVPD Service subscribers (e.g., TV Everywhere) state, for every month from January 1, 2012 to June 30, 2014:

- a. the percentage of the Company's MVPD Service subscribers that view Video Programming via the service, separately for residential and other subscribers;
 - b. the total number of hours viewed, separately for residential and other subscribers; and
 - c. the total cost of video distribution rights.
10. List every Person that the Company has entered into an agreement to offer, during the period from January 1, 2012 to June 30, 2014, Synthetic Bundles using another Person's MVPD Service and the Company's Internet Access Services. For each agreement listed:
 - a. provide a copy of the agreement;
 - b. state the term of the agreement and, if applicable, when the agreement was terminated and the reasons for the termination;
 - c. describe for each agreement (i) the discount available to subscribers that purchase the Synthetic Bundle; (ii) the revenue split between Company and the other party; (iii) any limitations on the availability of the Synthetic Bundle to the Company's customers or the other party's customers based on the technology used to serve the customer, whether the customer is residential or non-residential, the geographic location of the customer, or any other characteristics of the customer; (iv) the method of the billing the services; (v) the method of installing the services (e.g., one installation visit, timing of installation, etc.); and (vi) the nature and amount of any commissions provided to the Company or the other party; and
 - d. produce all documents relating to the agreements identified in response to this Request.
11. In addition to the agreements identified in Request 10, identify any agreements the Company entered into or considered entering into for (i) the Company to provide any Relevant Service using the facilities of another Person, including any agreement to sell the Relevant Service of another Person (e.g., on an agency basis); or (ii) any other Person to provide any Relevant Service using the facilities of the Company, during the period from January 1, 2012 to June 30, 2014. For each such agreement:
 - a. provide a copy of the agreement;
 - b. state the term of the agreement and, if applicable, when the agreement was terminated and the reasons for the termination; and
 - c. produce all documents relating to the agreements or proposed agreements identified in response to this Request.
12. Produce all documents relating to the reasons subscribers (a) began a subscription with the Company for MVPD Service, Internet Access Service, or Telephony Service and whether the subscriber switched from a different provider and, if so, the identity of the previous provider; and (b) ended a subscription with the Company for MVPD Service, Internet Access Service, or Telephony Service, and whether the subscriber switched to a new provider, and if so, the identity of the new provider.
13. Produce all documents relating to:
 - a. diversion ratios, diversion rates, customer switching, porting, customer losses, and cross-elasticities of demand or similar measures between a Relevant Service provided by the Company and any

Relevant Service provided by competitors;

b. elasticities of demand, price sensitivity, willingness to pay, or similar measures, for any Relevant Service provided by the Company or its competitors;

c. measures of upward pricing pressure, including gross upward pricing pressure indices (GUPPIs) and net upward pricing pressure indices (NUPPIs) for any Relevant Service provided by the Company and a Relevant Service provided by a competitor; and

d. the role of switching costs, customer inertia, and any other impediments to subscribers switching providers of any Relevant Service.

14. For subscribers to the Company's Internet Access Service that do not purchase MVPD Service from the Company, produce all documents relating to whether these subscribers subscribe to another provider's MPVD Service, the identity of the provider of MVPD Service, or the subscribers' reasons for choosing this provider.

15. For each month, since January 1, 2014, for customers who are subscribers to the Company's Standalone Services or Bundled Services, by month of tenure with their current plan, state, and provide in CSV or Excel format:

a. the number of subscribers as of the last day of the month;

b. the average revenue per subscriber;

c. the total number of disconnects from the service plan initiated either by the subscriber or the Company in the month;

d. the number disconnects from the service plan initiated by the Company for non-payment or other reasons in the month;

e. the number of mover disconnects from the service plan initiated by the subscriber in the month; and

f. the number of other disconnects from the service plan initiated by the subscriber in the month.

16. For each Relevant Service, identify each electronic or other database or data set used or maintained by the Company at any time after January 1, 2012, without regard to custodian, that contains information concerning the Company's (a) sales; (b) prices; (c) margins; (d) costs, including but not limited to programming costs, distribution costs, standard costs, expected costs, and opportunity costs; (e) patents or other intellectual property; (f) research or development projects; (g) licensing of Video Programming; (h) subscribers; (i) subscriber switching; (j) market shares; and (k) network performance.

For each such database, identify (i) the database type, (i.e., flat, relational, or enterprise); (ii) the size in both number of records and bytes of information; (iii) the fields, query forms, and reports available or maintained; and (iv) any software product or platform required to access the database.

17. Provide, for March 2014, the following subscriber billing data files that were submitted by the Company on July 17, 2014 in support of the Application: **BEGIN HIGHLY CONFIDENTIAL *****
*****END HIGHLY CONFIDENTIAL** Include the modifications listed below along with

accompanying data dictionaries that provide a description of each field and code contained within each database:

- a. describe the universe of included customer locations (“CLOCS”) in each data set originally submitted and, if applicable, change the universe to include all residential subscribers billed in the month for any of the Company’s Internet Access Service, MVPD Service, or Telephony Service, and residential subscribers billed for Internet Access Service, MVPD Service, or Telephony Service on behalf of another company;
- b. provide a field indicating whether the subscriber is subject to an early termination fee (“ETF”);
- c. provide the ETF amount that the subscriber would be charged if they cancelled service in that month;
- d. provide a field indicating whether the subscriber cancelled a service for each service code in the month and a field indicating whether they cancelled all Company services in the month;
- e. state the month and year that the CLOC began continuously subscribing to any Internet Access Service, MVPD Service, or Telephony Service offered by the Company;
- f. provide all subscriber acquisition cost fields associated with the CLOC in any database maintained by the Company and the total subscriber acquisition costs for the CLOC;
- g. for the **BEGIN HIGHLY CONFIDENTIAL*** **END HIGHLY CONFIDENTIAL** databases, provide all fields related to any payments to and from the CLOC associated with any services billed by the Company to the CLOC in the month (i.e., the data should represent the total revenues associated with the CLOC and should provide all code for those revenue categories);
- h. provide a database of all non-recurring charges and credits in any month associated with the CLOC since the customer started service on their current plan broken down into the following categories: (i) net installation charges; (ii) net equipment charges; (iii) credits, rebates and any other incentives for subscribing to plan (e.g. gift cards); and (iv) internet overage charges; and
- i. provide a field with the name of the entity for any services billed for another entity.

18. For each Internet Access Service plan code **BEGIN HIGHLY CONFIDENTIAL*****END HIGHLY CONFIDENTIAL** contained in the billing data referenced in Request 17 submit a dataset with the following characteristics for each plan code:

- a. the Internet Access Service plan code;
- b. the plan’s advertised upload speed, or an explanation of how the upload speed is calculated if there is no advertised speed; and
- c. the advertised download speed.

19. For each MVPD Service plan code contained in the billing data referenced in Request 17, by zip code, submit a dataset with the following characteristics for each plan code:

- a. the MVPD Service plan code;

- b. the average total number of channels provided with the plan;
 - c. the total number of national non-broadcast Programming Networks provided with the plan; and
 - d. the Programming Networks provided with the plan.
20. Provide a database with the following fields for every residential and business customer location, as of March 31, 2014, to which the Company owns facilities that are capable of providing MVPD Service, Internet Access Service or Telephony Service:
- a. CLOC;
 - b. the CLOC's address, including, street address, city, state, 5-digit Zip Code, in a standardized format to be determined in consultation with Commission staff;
 - c. the CLOC's longitude and latitude;
 - d. the CLOC's census block;
 - e. whether the CLOC is a residential or business location;
 - f. the technology type available to the CLOC: (i) copper with no xDSL capability; (ii) xDSL; (iii) IPDSL; (iv) FTTN without capability to provide MVPD Service; (v) FTTN with capability to provide MVPD Service; and (vi) FTTP;
 - g. the maximum advertised internet access download speed available to the CLOC; and
 - h. the maximum advertised internet access upload speed available to the CLOC, or if there is no advertised speed, an explanation of how the upload speed is determined.
21. Produce all documents relating to competition in the provision of each Relevant Service in each Relevant Area, including, but not limited to, surveys, studies, forecasts and all other documents relating to:
- a. sales, market share, or competitive position of the Company or any of its competitors;
 - b. the relative strength or weakness of Persons selling any Relevant Service and the extent to which providers of any Relevant Service compete with each other;
 - c. supply and demand conditions;
 - d. competition in the sale of bundles that include a Relevant Service;
 - e. attempts to win customers from other companies and losses of customers to other companies;
 - f. how consumers, MVPDs, and OVDs view or perceive Video Programming offered by the Company or any other Person (including the impact of placing programming in a particular neighborhood or tier, the impact of not offering certain programming, the ability to substitute other programming, the impact of bundling more than one programming channel, or the impact of pricing on decisions to purchase Video Programming or MVPD Service, including ratings and consumer surveys relating to

Video Programming);

g. allegations that any Person that provides any Relevant Service is behaving in an anticompetitive manner, including, but not limited to, customer and competitor complaints, threatened, pending, or completed lawsuits; and federal and state investigations, including any carriage or program access complaints filed against the Company with the Federal Communications Commission pursuant to 47 C.F.R. § 76.1301 et seq. or 47 C.F.R. § 76.1000 et seq.;

h. any Person's decision to block, stop, limit, hinder, slow, favor, prioritize, or otherwise treat the transmission of any OVD or other content over that Person's Internet Access Service differently due to the software application used, its source or destination, or other characteristic of the content or service. Documents solely relating to unsolicited commercial e-mail (i.e., SPAM) and malicious software need not be produced;

i. the impact of cord shavers, cord cutters and cord nevers on the Company's marketing, revenues and profits;

j. any actual or potential effect on the supply, demand, cost, or price of any Relevant Service as a result of competition from any other possible substitute service or provider;

k. role of innovation in competition or potential competition relating to improvements or innovations in features, functionality, platforms, performance, cost, or other advantages to users of the service;

l. role of reliability and reputation in competition or potential competition;

m. churn, subscriber acquisition costs, costs per gross addition, and subscriber retention costs, including consumer costs incurred in switching to another Person's Relevant Service, and data and studies analyzing the source of the Company's new subscribers, why subscribers disconnect service with the Company and the reasons for disconnections, and factors affecting consumers' decisions to switch to or from a Relevant Service offered by the Company;

n. (1) consumer satisfaction with the Company's Relevant Service (including all documents relating to plans, policies and procedures for addressing concerns raised by rankings and surveys), and (2) consumer substitution between Internet Access Service provided by each of the Company's service technologies (i.e., copper with no xDSL capability; xDSL; IPDSL; FTTN without capability to provide MVPD Service; FTTN with capability to provide MVPD Service; and FTTP) and Internet Access Service provided by competing cable operators;

o. the characteristics of consumers who want to purchase Standalone Services or Bundled Services;

p. any evaluation or comparison between any Relevant Service and any other service, including but not limited to the effect or impact of OVD on MVPD;

q. any customer preferences or selection criteria relating to the purchase or use of each Relevant Service rather than any other service, or relating to any Relevant Service offered by the Company rather than any service offered by any other Person (including any sales tracking data);

r. the effects of the price of a Synthetic Bundle on the stand-alone price of a Relevant Service, the costs and benefits of such bundling, and any other comparison of Bundled versus Standalone Services, including but not limited to any shortcomings or limitations of synthetic bundles and the attempts made to

resolve the shortcomings of the Synthetic Bundle;

s. the relative strength or weakness of persons selling any relevant service, selling either Standalone Services or such services bundled with a mobile wireless/broadband service, and the extent to which providers of any relevant wireless service compete with each other;

t. the characteristics of consumers who want to purchase Standalone Services or such services bundled with a mobile wireless/broadband service, and the sales, market share, or competitive position of the Company or any of its competitors in the sale of Standalone Services or such services bundled with a mobile wireless/broadband service; and

u. any advantage or disadvantage to any Person arising from the size of its footprint or its subscribership on its ability: (i) to negotiate terms with Persons selling or licensing Video Programming, including but not limited to terms that grant the Company exclusive rights to programming; and (ii) competition with other providers of MVPD Service, OVD and Internet Access Service.

22. For each Relevant Service, Standalone Service and Bundled Service, produce (a) one copy of all current selling aids and promotional materials; and (b) all documents relating to advertising plans and strategies.

23. Produce all documents created or received by the Company that relate to the Company's or any other Person's: pricing plans; pricing policies; pricing lists; rate cards; pricing forecasts; pricing strategies; pricing analysis; introduction of new pricing plans or promotions; bundled pricing, including analysis of the profitability of bundles and their impact on customer retention; or pricing decisions relating to any Relevant Service.

24. State the name and address of each Person that has entered or attempted to enter into, or exited from, the provision of each Relevant Service, from January 1, 2012, to the present. For each such Person, identify the services it provides or provided; the area in which it provided the services, including whether the Person has sold or distributed the Relevant Service in the United States; and the date of its entry into or exit from the market. For each entrant, state whether the entrant built a new facility, converted assets previously used for another purpose (identifying that purpose), or began using facilities that were already being used for the same purpose.

25. Provide a list of possible new entrants into the provision of, or a substitute for, each Relevant Service, stating why the Company believes each Person is a possible entrant or could provide a substitute service, including but not limited to, mobile wireless broadband service, and what steps it has taken toward entry. Produce a list of all requirements for entry into the provision of, or a substitute for, a Relevant Service and an estimate of the time required to meet each requirement, and provide all documents relating to research and development, planning and design, production requirements, distribution systems, service requirements, patents, licenses, sales and marketing activities, and any necessary governmental and customer approvals for entry in to the provision of each Relevant Service.

26. Produce all documents relating to the Company's pre-Transaction and post-Transaction plans relating to any Relevant Service in the Relevant Area, including, but not limited to, business plans; short-term and long-range strategies and objectives; budgets and financial projections; expansion or retrenchment plans, including any plans to encourage adoption of the Company's FTTP video service; research and development efforts; plans to better manage Relevant Services (e.g., plans to close, consolidate, or rationalize any facility or to discontinue the provision of any Relevant Service); presentations to management committees, executive committees, and boards of directors; plans to

reduce costs or to improve services or service quality, introduce new services or manage communications security and reliability risks; plans to deploy Wireless Local Loop (WLL) services, FTTP or GigaPower services; plans to upgrade existing services, including any U-Verse upgrades; plans to switch build-out of FTTN to build-out of FTTP; plans to increase Internet Access Service speeds by provisioning MVPD Service through DBS rather than over the Company's network; and plans to provide any Relevant Service using WiFi technology. For regularly prepared budgets and financial projections, produce one copy of final year-end documents for 2012 through 2013 and cumulative year-to-date documents for 2014.

27. Provide a copy of each (a) Nielsen Co. report; (b) ComScore report; (c) Centris report; and (d) any other third-party report relating to MVPD Service, Video Programming or OVD usage regularly used by the Company, and all research using any of these reports.
28. Identify each Programming Network owned by, operated by, or managed by the Company, or in which the Company holds an Attributable Interest, by stating the information requested by the subparts to this Request, and provide the date and details of any changes to that information:
 - a. the nature and percentage of the Company's Attributable Interest;
 - b. the identity of and percentage owned by each other Person who holds an Attributable Interest;
 - c. the date the Programming Network was launched, and if acquired from another entity, the date the Programming Network was acquired and from whom the Company acquired its interest;
 - d. the nature and extent of the Company's role in management, including whether the Company has any board representation, management rights, voting rights, and/or veto power, supermajority, or other investor protections; and
 - e. for each DMA in which the Company distributes the Programming Network, identify the DMA and provide the total number of the Company's subscribers that receive the Programming Network in such DMA.
29. For each Programming Network identified in response to Request 28, state separately, and produce in CSV or Excel format, for each month from January 1, 2012, to the present:
 - a. the identity of any MVPD or OVD that carries the network, and for each such distributor state (i) the total and per subscriber license fee paid by the distributor to the Company; (ii) the total number of the distributor's subscribers that receive the network; (iii) the number of minutes per hour granted to the distributor for local advertising sales; and (iv) the tier on which the network is carried;
 - b. for all MPVDs or OVDs carrying the network combined, state (i) the total per subscriber license fees and average per subscriber license fees paid to the Company; (ii) the total number of subscribers that receive the network; and (iii) the average number of minutes per hour granted to distributor for local advertising sales;
 - c. the average gross advertising revenue per subscriber and the average net advertising revenue per subscriber and an explanation of how these values were calculated;
 - d. the identity of each OVD, including but not limited to Apple, Amazon.com, Google, Netflix, Hulu, and the Company, that publishes, sells, or distributes, in whole or part, content produced or distributed by

the Programming Network, and the total fees paid by the OVD to the Company for the right to distribute such programming; and

e. the identity of all Video Programming that the Company maintains is a close substitute for the programming carried on the Company's Programming Networks and the programming for which the identified Video Programming is a substitute.

30. Identify each instance where an MVPD has threatened to raise, or has raised, a program access complaint as a means to obtain the right to distribute the Company's programming, including VOD or PPV, and separately for each type of Programming Network (standard or high definition), describe:

a. the nature of the dispute or issue;

b. the parties involved; and

c. how and whether the dispute or issue was resolved. To the extent the dispute was settled, explain whether the settlement required the Company to provide program access to the complaining party, and provide all documents relating to each such settlement.

31. Describe and produce all documents relating to plans by the Company for the potential development of new Company-affiliated Programming Networks and/or the acquisition of any interests in Programming Networks and the programming planned for any such networks.

32. Identify all sports teams, leagues, and other organizations with which the Company (or a network in which the Company has an Attributable Interest) has a contract granting distribution rights in the United States, and for each one state:

a. the official name of the team, league, or organization, the sport played, and its home venue;

b. the term of the contract that grants the right to distribute the Sports Programming in the United States and whether the Company has a right of first refusal;

c. the geographic area in which the Company has rights to distribute the Sports Programming;

d. the percentage of total game events entitled to be distributed live under the agreement and the percentage for which the live distribution rights are exclusive to Programming Networks or MVPD Service in which the Company has an interest;

e. any plans to begin distributing game events in the United States; and

f. whether the Company is currently distributing or not distributing this Sports Programming.

33. Provide all documents relating to each agreement between the Company and any U.S. professional or college sports team or league that conveys the right to distribute the team's or league's games or other content in the United States. Include any contract entered into since January 1, 2014 that allows for distribution as a part of any Programming Network in which the Company has an ownership, controlling or Attributable Interest, or as Video Programming on the Internet, whether distributed via MVPD Service or by an OVD, and produce all documents relating to negotiations of the contracts produced in response to this Request.

34. As of June 30, 2014, identify each RSN in which the Company has an Attributable Interest and for each

RSN identified, state:

- a. the primary DMA in which the RSN is distributed;
 - b. the average license fee revenue per subscriber (excluding out of market subscribers);
 - c. the average gross and the average net advertising revenue per subscriber (excluding out of market subscribers) and an explanation of how these values were calculated; and
 - d. the number of subscribers (excluding out of market subscribers) to the RSN, separately for each MVPD that distributes the RSN.
35. Provide the Company's two most recent agreements, including all attachments and amendments thereto, for distribution of each RSN in which the Company holds an Attributable Interest to any MVPD or OVD.
36. Provide all strategic plans, policies, analyses, and presentations prepared for, presented to, reviewed by, discussed by, or considered by the Company's board of directors or the Company's executive management, or any member thereof, regarding the modification or termination of exclusive or non-exclusive Sports Programming distribution arrangements, or regarding entering into new exclusive or non-exclusive Sports Programming distribution arrangements.
37. Identify all arbitration proceedings for which the Company has received a notice to arbitrate with respect to an RSN. For each notice, describe:
- a. the nature of the dispute (for instance, first time or continuing carriage);
 - b. the parties involved; and
 - c. how and whether the arbitration was resolved.
38. Provide all documents relating to deliberations and decisions to launch or acquire new RSNs.
39. Provide all documents, including internal and external analyses, regarding the value and/or benefits of acquiring DIRECTV's rights to distribute Video Programming associated with the NFL Sunday Ticket.
40. For each channel of Video Programming the Company distributes, including regionally distributed programming such as RSNs, in addition to nationally-distributed programming, separately for each month from January 1, 2012 to June 30, 2014 state and provide in CSV:
- a. the name of the channel;
 - b. the number of the Company's subscribers whose MVPD programming packages include the channel; and
 - c. the total and per subscriber fee paid by the Company for the channel.
41. For each DMA in which the Company provides MVPD Service, for each local broadcast television station that the Company carries, separately for each month from January 1, 2012 to June 30, 2014 state and provide in CSV or Excel format:

- a. the name and network affiliation of the local television station;
- b. the number of the Company's subscribers whose MVPD Video Programming packages include the channel; and
- c. the total and per subscriber retransmission consent fee paid by the Company to the local broadcast television station.

42. List all requests for program carriage, specify which program carriage requests were approved and which were denied, and for each state, and provide all documents relating to:

- a. the date of the request and the reasons why each Programming Network request was approved or denied;
- b. the genre type of each Programming Network (i.e., children's, news, Spanish language, etc.);
- c. the tier and neighborhood placement for Programming Network granted carriage;
- d. whether the inclusion of the Programming Network resulted in any adjustment or modification to the price for the tier on which such programming is carried; and
- e. whether any carriage agreement into which the Company has entered during the last three years has resulted in a change in tier placement for the subject network in any geographic area covered by the agreement.

43. Provide all documents relating to the Company's Video Programming carriage decisions, including (a) decisions whether to carry a specific channel or programming; (b) decisions regarding on what tier a particular programming channel will be placed; (c) the value each channel contributes to the Company's MVPD Service and that value's impact on the price the Company charges; (d) any disputes the Company has had regarding carriage decisions that resulted in the removal or threatened removal, either temporarily or permanently, of existing programming from carriage; and (e) customer surveys, market tests, and research relating to the programming at issue.

44. Describe the minimum viable scale necessary to launch and maintain a Programming Network, including, but not limited to, the capital required for entry, construction of new facilities, whether carriage on any particular MVPD or OVD is necessary, and if so, the identity of each such provider, and the number of subscribers and advertisers needed to break-even. Indicate whether the Company's response would vary based upon the type of Video Programming (e.g., movies, sports, Spanish-language). Also describe, and submit all documents relating to, the Company's launch of, or attempt to launch, any Programming Network.

45. Provide all documents relating to plans, analyses, assessments or consideration of plans to modify, terminate, or enter into exclusive programming distribution arrangements in the United States.

46. Provide a list of and produce a copy of all agreements between the Company and any other Person for distribution of any Video Programming carried by the Company's (a) MVPD Service and (b) OVD service, and in each case produce all documents relating to each agreement that was effective at any time during January 1, 2012 to June 30, 2014.

47. Identify each agreement the Company has entered with another Person through which the Company acquires Video Programming from another Person or licenses another Person to distribute the

Company's Video Programming, that contains any of the following provisions: (i) any price-related or non-price related Most Favored Nation clause; (ii) any exclusive rights to distribute the programming; (iii) any limits on the further distribution of the programming that is the subject of the agreement either temporally, such as through the use of windows, or by another Person or class of similar Persons; (iv) any limits on the further distribution of the programming on another platform; (v) any rights to obtain, or limits on the distribution of, additional programming whether or not such programming was in existence at the time the agreement was entered into; and (vi) any provision relating to the authentication of Users, including any limits on Video Programming distributors that impact their ability to authenticate the identity of a User for the purpose of delivering additional data to advertisers, and any provision that concerns the extent to which access to the set-top box impacts the ability of any Person to authenticate Users, for example through the operations of apps; and (vii) any other provision that impacts the way that the programming is distributed or made available to other distributors or providers differential treatment of a service provided by the Company or any affiliate, and for each such agreement state:

- a. the parties to the agreement;
- b. the date the agreement was entered into;
- c. the term of the agreement;
- d. a description of the provision;
- e. the date that any party to the agreement exercised any rights or received any benefits from any of the provisions detailed in parts (i) through (vii) of this Request; and
- f. a description of any actions taken or benefits received as a result of any of the provisions detailed in parts (i) through (vii) of this Request.

48. Identify each instance that the Company, in negotiations with another Person that did not result in an agreement for the Company to either acquire Video Programming from another Person, or license another Person to distribute the Company's Video Programming, the Company or another Person proposed any of the following provisions: (i) any price or non-price Most-Favored-Nation clause; (ii) any exclusive rights to distribute the programming; (iii) any limits on the further distribution of the programming that is the subject of the agreement either temporally, such as through "windows," or by another Person or class of similar Persons; (iv) any limits on the further distribution of the programming on another platform; and (v) any rights to obtain, or limits on distribution of, additional programming whether or not such programming was in existence at the time the agreement was entered; (vi) any provision relating to the authentication of Users, including any limits on Video Programming distributors that impact their ability to authenticate the identity of a User for the purpose of delivering additional data to advertisers, and any provision that concerns the extent to which access to the set-top box impacts the ability of any Person to authenticate Users, for example through the operations of apps; and (vii) any other provision that impacts the way that the programming is distributed or made available to other distributors, and for each such negotiation state:

- a. the Person to whom the term was proposed;
- b. the Video Programming that would have been the subject of the provision;
- c. the date the proposal was made; and

- d. the reasons why an agreement was not reached.
49. Identify and provide all documents relating to each instance since January 1, 2012 in which the Company obtained a lower per-subscriber fee than the rate the Company was previously paying for any Video Programming (including through the acquisition or sale of or affiliation with any MVPD or Video Programming channel), and for each such instance state: (a) the date, circumstances, and reduction received; and (b) whether the Company passed through the programming cost saving to its residential subscribers in the form of lower monthly subscription fees, moving the relevant channel to a less costly service tier, or in any other way. Produce documents sufficient to compare the per subscriber fee the Company pays for Video Programming and the per subscriber fee paid by other Persons for the same Video Programming.
50. Provide all documents relating to:
- a. the development and deployment of streaming solutions that provide Video Programming carried by the Company, either linear or non-linear, to consumer devices with or without using in-home hardware to transcode the content;
 - b. the extent to which new System Technologies or services, including but not limited to video, voice and Internet Access Services, would enhance or limit a subscriber's ability to use a consumer-owned Navigation Device or record Video Programming;
 - c. the expected deployment(s) of new technologies of services including the timing of such deployment;
 - d. the availability of the Company's Navigation Devices from retail outlets and other vendors throughout the United States that are not affiliated with the owner or operator of the MVPD system; and
 - e. support of consumer-owned Navigation Devices, including but not limited to: discussions with consumer electronics manufacturers about development of compatible navigation device equipment, compliance with Section 629 of the Communications Act of 1934, as amended (47 U.S.C. § 549), and all regulations adopted by the FCC to implement Section 629, including plans to seek waivers of the same.
51. With respect to the deployment of TV Everywhere services, provide:
- a. a complete list of devices for which the Company provides TV Everywhere authentication and a complete list of applications for which the Company provides TV Everywhere authentication that also identifies each device through which access for each application has been approved;
 - b. a list of and description of each application and device for which each Company is currently negotiating TV Everywhere authentication services;
 - c. a list of and description of each application and device for which each Company has declined to provide TV Everywhere authentication services; and
 - d. a description of all criteria used by each Company to determine whether to enter into an agreement to provide TV Everywhere authentication service to an application, content provider, or device manufacturer.
52. With regard to the capability of the Company's content and consumer premises equipment ("CPE") to interact or operate with unaffiliated content, such as through the use of applications on the

Company's CPE and devices, produce:

- a. a list of unaffiliated content supported by the Company and a description of the applications, devices or underlying technologies that the Company uses for interoperability with such unaffiliated content;
- b. the licensing and other agreements entered into by the unaffiliated content providers to accomplish the interoperability with the Company's CPE;
- c. the criteria used to determine whether to grant or deny an unaffiliated Person's request for access to the Company's CPE, devices, or content;
- d. a list of all unaffiliated content providers who have not received approval and the reasons supporting each denial for (i) unaffiliated content sources, such as those from Netflix, Hulu, and Amazon, on the Company's CPE, (ii) delivery of unaffiliated content to retail devices in the home, such as to Microsoft's Xbox, Sony's Playstation, Tivo devices, Roku devices, and Apple's AppleTV by in-home streaming or other technologies; and (iii) delivery of each unaffiliated content to retail devices outside the home;
- e. all documents relating to the provision of any Relevant Service to residential subscribers through the Company's third-party wireless technology or other applications or devices, including but not limited to Xbox, TiVo, Roku, and Apple TV; and
- f. all documents related to CPE research, development and innovation plans, including those relating to the costs, benefits (including cost savings), or the profitability of a common set-top box for use by AT&T's wireline video services and satellite video services; and a common video platform for use over the merged entity's footprint.

53. Provide a list of each PEG channel offered by the Company and identify the system on which it is offered and the tier(s) (including analog and digital tiers) on which each of those channels appears.
54. (a) State whether the Company will replicate PEG Video Programming offerings on both U-Verse and DIRECTV's video systems that are currently carried only on AT&T's U-Verse video system and (b) describe plans, including any changes, for the carriage and support of PEG Video Programming that is currently carried on AT&T's U-Verse Channel 99 (which currently is dedicated exclusively to PEG Video Programming).
55. Produce documents related to: (a) Project VIP, including but not limited to financial modeling, projected and actual returns on investment, NPV and IRR estimates and projected and actual costs of deployment; (b) **BEGIN HIGHLY CONFIDENTIAL *** **END HIGHLY CONFIDENTIAL**, and (c) investment in FTTP, including but not limited to financial modeling, projected and actual returns on investment, NPV and IRR estimates and projected and actual costs of deployment.
56. Provide the following information relating to the "Overview of AT&T FTTP Investment Model," filed with the Commission in support of the Transaction on July 29, 2014 (the "FTTP Investment Model"):

BEGIN HIGHLY CONFIDENTIAL * Subparts a-o ***END HIGHLY CONFIDENTIAL**

57. Provide the following information relating to the “*Additional Detail on the Demand Estimation, Merger Simulation, and Investment Model Analysis Performed by Professor Michael Katz,*” filed with the Commission on July 29, 2014:

BEGIN HIGHLY CONFIDENTIALSubparts a-b*** END HIGHLY CONFIDENTIAL***

- c. the net present value (NPV)/IRR of the investment in the proposed FTTP network based on the incremental cash flows for the Company post-Transaction;
- d. a summary worksheet that captures the projected cash flows aggregated over all distribution areas cleared for FTTP in the baseline scenario. The worksheet should include the following information and show the derivation of the projected cash flows for 2015 – 2023:
 - i. total number of customer locations;
 - ii. number of customer locations passed;
 - iii. total number of subscribers;
 - iv. weighted average revenue per subscriber per month;
 - v. total revenues (v should be equal to iii * iv * 12);
 - vi. average operating expense per subscriber;
 - vii. total operating expenses (excluding depreciation and amortization) broken down by
 - 1. recurring expenses; and
 - 2. non-recurring expenses;
 - viii. depreciation and amortization;
 - ix. interest expense;
 - x. income taxes;
 - xi. net income;
 - xii. deferred taxes;
 - xiii. average capital expenditure (CapEx) to pass a customer location;
 - xiv. average CapEx to connect a customer location;
 - xv. total CapEx; and
 - xvi. cash flows.

Alternatively, to the extent that the values listed above can be calculated from information already provided with the FTTP Investment Model and supporting documentation, provide a detailed explanation of how to calculate the values (including references to specific Excel worksheets and cells).

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58. With respect the Company’s planned deployment of WLL to 13 million customer locations as described in the Public Interest Statement, provide:

a. a list, in CSV, by county in each Relevant Area, of each spectrum license that the Company plans to use in the provision of WLL services, including for each license, the: (i) FIPS Code; (ii) county; (iii) state; (iv) market name; (v) market number (in the case of CMA, MTA, or BTA); (vi) spectrum type; (vii) spectrum block; and (viii) the amount of spectrum that will be used to support the WLL service;

b. polygons in an ESRI shapefile format representing the geographic coverage of the Company’s proposed WLL deployment as depicted in Figure 1 of the Declaration of John T. Stankey submitted in support of the Application (the “Stankey Declaration”), including:

- i. in each polygon where the Company plans to deploy WLL, each frequency band (*e.g.*, Lower 700 MHz, Cellular, AWS-1, PCS, WCS) that the Company plans to use for deployment of WLL and the geographic area in which it will be offered;
 - ii. the projected minimum upload and download speeds for each geographic area and each frequency band; and
 - iii. identification of the geographic areas that qualify as “rural,” as referenced in the Stankey Declaration;
- c. a description of all assumptions, methodology (*e.g.*, propagation, projection, field measurements), calculations (including link budgets), tools (*e.g.*, predictive and field measurements) and data (*e.g.*, terrain, morphology, buildings) used in the production of the polygons, and identification of the propagation tool used, the propagation model used within that tool, including but not limited to, the coefficients used in the model and any additions, corrections or modifications made to the model;
- d. the methodology for, and documents supporting, the selection of areas as “rural” as referenced in the Stankey Declaration, including the method of calculating areas with fewer than 250 people per square mile and determining that “about 85 percent of the customer locations” are expected to be outside the Company’s wireline footprint;
- e. a description of, and all documents relating to, the fixed WLL service that the Company plans to offer, including the usage allowances, download and upload speeds, and pricing;
- f. an explanation of how the Company determined the usage allowances and download and upload speeds that the Company considers to be sufficient to readily satisfy most customers’ needs;
- g. a description of, and documents supporting, the Capacity of the WLL service that the Company will offer, including, but not limited to, the maximum number of subscribers in a WLL cell that can receive the desired level of service quality, the maximum number of simultaneous WLL subscribers in a WLL cell that can be supported at the desired service quality level during peak periods of usage, and the amount of spectrum allocated in each band to achieve this Capacity (Stankey Declaration paragraph 49);
- h. all documents relating to the lab simulations referenced in the Stankey Declaration at paragraph 49, including the expected average cell spectral efficiency, and plans for the field test of the WLL technology;
- i. an explanation of, and all supporting documents for, the end-user rate of 10 Mbps more than 90 percent of the time at the cell edge, including but not limited to a description of the “advanced technologies”; the spectrum efficiency benefit of each “advanced technology”; the LTE system parameters including the MIMO configuration; the definition of “cell edge” including signal strength, signal to noise ratio, and the link budget; and the major type (*i.e.*, outdoor or indoor), gain, physical

dimensions, and horizontal and vertical patterns of customer premise antennas that are expected to be professionally installed;

j. an explanation of, and all documents supporting, the amount the end-user rate will improve above 10 Mbps more than 90 percent of the time, both as the user is moved further into the cell to experience improved coverage and as load is reduced in off-peak periods, including but not limited to the benefits of the “advanced technologies”, the spectrum efficiency benefit of each “advanced technology” as a function of signal-to-noise and network loading, the LTE system parameters including the MIMO configuration, the definition of “cell edge” including signal strength, signal to noise ratio, and the link budget, and the major type (outdoor or indoor), gain, physical dimensions, and horizontal and vertical patterns of customer premise antennas that are expected to be professionally installed;

k. an explanation of the WLL deployment criteria;

l. the number of WLL-enabled sites that are expected to be deployed to cover the 13 million customer locations;

m. the number of WLL-enabled sites that require the installation of additional antennas and other equipment;

n. the total of WLL-enabled sites that require the new build sites;

o. the projected WLL penetration rate, the projected number of WLL subscribers and all documents related to the projected subscription rates;

p. the locations, in the form of polygons in an ESRI shapefile format representing the geographic areas, where the Company has determined that (i) its WLL deployment would be the only terrestrial broadband service available; (ii) there is only one other terrestrial provider, and (iii) where there is an additional provider that the broadband provided is relatively slow based on the NTIA data and all data and documents supporting these determinations;

q. an explanation, and all documents relating to the claim in the Stankey Declaration that “The transaction dramatically improves the business case for deploying fixed WLL services” , including documents relating to the effect on WLL deployment if any of the Transaction synergies are not achieved;

r. all documents discussing the Company’s ability to recover investment and operational costs , including the ability to compete with other providers of Internet Access Service, spectrum Capacity constraints, the number of subscribers to whom the services can be marketed to in order to maintain quality of service, the revenue sufficient to justify the investment, and the useful life of the WLL; and

s. all documents discussing the Company’s incentives to invest in WLL including the effect of offering WLL on the sales of DIRECTV’s video service, the lowering of operating expenses, and the technical integration between satellite and fixed wireless networks that may result in improved television services.

59. Describe and provide documents supporting the methodology used in the financial analysis of the WLL deployment and all assumptions, data and documents relied on in the analysis, including but not limited to:

a. the expected expenses, both capital and operational, of deploying an LTE site that can provide the rates claimed in the Stankey Declaration, including the required release of LTE, MIMO configuration, antennas, frequency bands, additional radios, “advanced technologies” and other necessary configuration where there is: (i) no existing Company site; (ii) a Company site that does not have LTE, and (iii) a Company site that has LTE but needs to be modified or re-configured to support the WLL deployment at the claimed rates;

b. the expected expenses, both capital and operational, of deploying an LTE site that can provide the rates claimed in the Stankey Declaration, including the required release of LTE, MIMO configuration, antennas, frequency bands, additional radios, “advanced technologies” and other necessary configuration where there is: (i) no existing Company site; (ii) a Company site that does not have LTE, and (iii) a Company site that has LTE but needs to be modified or re-configured to support the WLL deployment at the claimed rates;

c. the expected cost of a professional installation at each customer’s location or any other costs, including but not limited to, processing changes in service, addressing outages or other issues, and providing on-going customer support;

d. the cost savings to the Company if a DIRECTV and WLL antenna are installed in a single truck roll;

e. any subsidy costs to the Company for consumer premise equipment (CPE) for the WLL service, including the per device cost and the expected replacement cycle for CPE equipment;

f. the capital and operational costs for backhaul or improvements to backhaul required to support the WLL service;

g. the capital and operational costs for core network offices and equipment or improvements to core network offices and equipment required to support the WLL service;

h. the opportunity cost of deploying WLL rather than mobile broadband or other services as discussed at paragraph 50 of the Stankey Declaration;

i. a comparison of the costs of providing WLL service to the costs of providing (a) copper with no xDSL capability; (b) xDSL; (c) IPDSL; (d) FTTN without capability to provide MVPD Service; (e) FTTN with capability to provide MVPD Service; or (f) FTTP;

j. any other capital and operational costs associated with the planned WLL deployment, including marketing, advertising, customer support, or other functions;

- k. the expected revenue, both total and per subscriber, for the planned WLL deployment;
 - l. the amount, by the type of service, of the per user revenue increase of the planned WLL deployment, including the rationale and calculation of the amount of the increase as compared to WLL churn absent the transaction; and
 - m. the amount of churn reduction as a result of the planned WLL deployment, including the rationale and calculation of the amount of the decrease as compared to WLL churn absent the transaction.
60. Page 21 of the Stankey Declaration states that the Company “continually assesses the marketplace, new technologies, customer preferences, and a wide variety of other data, to update its estimates of the economic viability of deploying GigaPower services to new areas.” Describe how the Company’s deployment of FTTP or GigaPower services will be affected if that assessment evidences a decrease in the economic viability of the planned WLL deployment.
61. The Company states on page 41 of the Public Interest Statement that it will commit to funding FTTP investments to two million “more” customer locations if the Transaction is approved. The Stankey Declaration identifies a specific number of customer locations that the Company had already planned to expand FTTP to in the absence of the Transaction.
- a. state whether (i) the Company is committing to expand FTTP to two million customer locations over and above the number of customer locations specified in the Stankey Declaration as those to which the Company planned to expand FTTP even in the absence of the Transaction; or (ii) if the Company is committing to expand FTTP only to two million more locations than it currently serves;
 - b. describe the specific post-Transaction commitment, if any, beyond the Company’s pre-Transaction plans;
 - c. for the pre-Transaction customer locations to which the Company planned to expand FTTP, state the fraction of these FTTP locations that will be residential locations and the fraction that will be non-residential locations;
 - d. for the 2 million more post-Transaction customer locations to which the Company plans expand FTTP, if any, state the fraction of these additional locations that will be residential locations and the fraction will be non-residential locations;
 - e. for the pre-Transaction customer locations to which the Company planned to expand FTTP, state the fraction of these locations that is currently served by (i) plain copper with no xDSL capability; (ii) xDSL; (iii) IPDSL (iv) FTTN without capability to provide MVPD Service; and (iv) FTTN with capability to provide MVPD Service; and
 - f. for the 2 million more or additional customer locations to which the Company has committed to extend FTTP post-Transaction, if any, state the fraction of these additional locations that is currently served by (i) plain copper with no xDSL capability; (ii) xDSL; (iii) IPDSL (iv) FTTN without capability

to provide MVPD Service; and (iv) FTTN with capability to provide MVPD Service.

62. State (a) whether the 15 million locations to which the Company has committed to deploy broadband are included in any prior commitments the Company made or will make to the Commission (including but not limited to Connect America Phase I or Phase II) or to State regulatory authorities and (b) if universal service funding will be used for any of the deployment to 15 million customer locations.
63. For the “customer Location and subscriber Figures” the Company filed with the Commission on July 8, 2014 provide updated customer location numbers that reflect the transfer of SNET and SNET America in Connecticut to Frontier Communications and provide all documents discussing the effect of that transfer on the Transaction.
64. In prior transactions, the Company has committed to various conditions in connection with approval of the transaction. Provide:
 - a. the number of subscribers that purchased the Company’s Internet Access Services on a standalone basis and the take rate as a result of the *AT&T/BellSouth* and *AT&T/SBC* transactions (see *AT&T and BellSouth Corporation*, WC Docket No. 06-74, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5813 (2007) and *SBC Communications and AT&T Corp.*, WC Docket No. 05-65, Memorandum Opinion and Order, 20 FCC Rcd 18290, Appx. F – ADSL Service (2005) (commitments to provide stand-alone ADSL service); and
 - b. the percentage of residential living units in the Company’s in-region territory that were provided broadband service as a result of the Company’s commitments in the *AT&T/BellSouth* transaction, and the total percentage of residential living units in the *AT&T/BellSouth* in-region territory that were offered broadband service by the end of the commitment period specified in the *AT&T/BellSouth* transaction. (see *AT&T and BellSouth Corporation*, WC Docket No. 06-74, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5807-8 (2007).
65. Provide all documents that discuss how AT&T’s network management practices would change, if at all, in order to meet its proposed commitment to adhere to the 2010 Open Internet rules.
66. Identify and provide all documents relied upon, reviewed, or referred to by every declarant in making the statements contained in their Declarations submitted to the Commission in connection with the Proposed Transaction.
67. Provide all merger simulations, econometric modeling, or similar analysis that have been undertaken by the Company or any consultant or expert hire by the Company to analyze the effect of the Transaction, including all data and documents used in those analyses.
68. To the extent the Applicants contend that the Transaction will result in (i) savings in any costs or expenditures or efficiencies; (ii) an enhanced ability to introduce new products, provide more products and services to customers and to improve service quality and management of communications security risks, and (iii) any other synergies:
 - a. describe in detail all of the claimed efficiencies, savings, new and improved products and synergies that are projected by the Applicants to result from the proposed Transaction, and submit a timeline for when these efficiencies, savings, new or improved products and synergies will be generated

and recognized by the Company;

b. produce all plans, analyses, and reports, models, assumptions, and spreadsheets, relating to the estimates of savings in costs, new or improved products the Company will introduce, and all synergies referred to in the Applicants' filings in the record;

c. provide, for each operational savings or cost synergy identified by the Applicants in determining their total savings and annual savings referred to in the Public Interest Statement and supporting declarations: (i) a quantification of the operational savings or cost synergy and an explanation of how the quantification was calculated; and (ii) the steps that the Company anticipates taking to achieve that operational savings or cost synergy, and the estimated time and costs required to achieve it;

d. state, for each cost savings, whether it is a fixed cost saving or a variable cost saving and explain the reasoning. State separately the one-time fixed cost savings, recurring fixed cost savings, and variable cost savings (in dollars per subscriber and dollars per year); and

e. for each new and improved product or service that the Company claims it will be able to offer as a result of the Transaction, state specifically the amount the Company will need to invest and spend to provide the new or improved product or service, identifying each element of the cost, including but not limited to, research, development, licensing fees, equipment and manufacturing costs.

69. Paragraphs 14-19 of the Declaration submitted by Rick L. Moore in support of the Company's Public Interest Statement provides an overview of the financial analysis that the Company conducted to estimate the magnitude of content cost savings that will result from the Transaction. Provide a description of this analysis, including but not limited to:

a. the Company's and DIRECTV's Video Programming cost data used in the financial analysis;

b. the Company's analysis of the data used to estimate the magnitude of the reductions in license fees that the Company will be able to negotiate post-Transaction; and

c. ***BEGIN HIGHLY CONFIDENTIAL *****END HIGHLY CONFIDENTIAL***

70. Produce all documents (except documents solely relating to environmental, tax, human resources, OSHA, or ERISA issues) relating to the Transaction and provide:

a. a timetable for the Transaction, a description of all actions that must be taken prior to consummation of the Transaction, and any harm that will result if the Transaction is not consummated;

b. a description of (including the rationale for, and identification of all documents directly or indirectly used to prepare the Company's response to this sub-part) all plans for changes in AT&T operations, structure, policies, strategies, corporate goals, financing, business, officers, employees or any other area of corporate activity as a result of the Transaction;

c. a description of, and all documents relating to each alternative to the Transaction by which the Company could achieve the efficiencies and cost-savings identified in Request 68 above and for each, why the Company could not achieve that efficiency without the Transaction; and

d. a description of any other terms or conditions of the Transaction that are not reflected in the merger agreement between the Applicants or other documents supplied in response to this Request.

71. Describe, and produce all documents discussing, each category of synergies, efficiencies or cost savings the Company attempted to realize or realized, including the time and cost anticipated for achieving, or required to achieve, those savings as a result of the following transactions:
- a. *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corp. for Consent to Transfer Control of Licenses and Authorizations*, WT Docket No. 04-70, Memorandum Opinion and Order, 19 FCC Rcd 21522 (2004) ;
 - b. *SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, WC Docket No. 05-65, Memorandum Opinion and Order, 20 FCC Rcd 18290, (2005);
 - c. *AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, WC Docket No. 06-74, Memorandum Opinion and Order, 22 FCC Rcd 5664 (2007);
 - d. *Applications of AT&T Inc. and Dobson Communications Corporation For Consent to Transfer Control of Licenses and Authorizations*, WT Docket No. 07-153, Memorandum Opinion and Order, 22 FCC Rcd 20295 (2007);
 - e. *Applications of AT&T Inc. and Centennial Communications Corp. For Consent to Transfer Control of Licenses, Authorizations, and Spectrum Leasing Arrangements*, WT Docket No. 08-246, Memorandum Opinion and Order, 24 FCC Rcd 13915 (2009); and
 - f. *Applications of Cricket License Company, LLC, Leap Wireless International, Inc., and AT&T Inc. for Consent To Transfer Control and Assignment of Authorizations*, WT Docket No. 13-193, 29 F.C.C. 2735 (2014).
72. Produce all documents analyzing, estimating, justifying or providing the basis for, or otherwise discussing any synergies claimed in the Public Interest Statement.
73. Produce all documents (i) relating to any communication between employees of the Company and any other Person with respect to any potential cost savings, efficiencies or synergies, (ii) provided by any other Person to the Company relating to any potential cost savings, efficiencies or synergies, and (iii) provided by the Company to any other Person relating to any potential cost savings, efficiencies or synergies.
74. Describe and provide all documents discussing the effect of the proposed Transaction, on Settlement-Free Peering and Paid Peering arrangements, including the agreement recently reached between AT&T and Netflix.
75. Describe terms the Company offers for Settlement-free Peering, Paid Peering and Transit Service agreements, including, but not limited to the length of contract, traffic levels and commitments, localization/number of interconnect locations, penalties for falling short on any terms, and pricing.
76. Produce all documents relating to plans, policies and procedures for managing traffic into and over the Company's network, including documents discussing *Verizon v. FCC*, 740 F.3d 623 (2014); *AT&T/BellSouth*, 22 FCC Rcd 5662, 5814–15, app. F (Net Neutrality); *SBC/AT&T*, 20 FCC Rcd 18290, 18293, para. 3 (discussing commitment to abide by the Internet Policy Statement), documents relating to the Company's usage-based pricing policies, and documents that analyze the tradeoffs to allocating differing bandwidth levels to MVPD Service, Internet Access Service, and Telephony Service.

77. Produce all documents relating to the Company's or any other company's policy or practice with respect to peering, including, but not limited to, any discussion or consideration of imposing charges or conditions upon peering, including any discussion of the effects of such policy or practice or change in such policy or practice. Produce all documents that discuss costs associated with Internet interconnection, including the sale of transit, the purchase of Transit Service, Settlement-free Peering, Paid Peering, or equivalent arrangements
78. Identify each Person (a) with whom the Company has replaced a Settlement-free Peering arrangement with a Paid Peering or Transit Service agreement, and describe the date the change was made and the reason(s) why the Company replaced the Settlement-free Peering arrangement with a Paid Peering or Transit Service arrangement; and (b) who has replaced a Settlement-free Peering arrangement with the Company with a Paid Peering or transit agreement, and describe the date the change was made and any reason(s) offered by that Person for replacing the Settlement-free Peering arrangement with a Paid Peering or Transit Service agreement.
79. Describe, and produce all documents discussing, the Company's policies with respect to upgrading, declining to upgrade, or downgrading interconnections between the Company and any other Person, including:
- a. the Company's policies and procedures for addressing congestion at interconnection links, including but not limited to how far in advance the Company plans for upgrades of interconnection links; how it determines whether to upgrade Capacity when requested; whether it automatically seeks to add additional Capacity when interconnection links reach a certain level of traffic (and if so, where that level is set); and the costs, processes, and length of time involved in provisioning additional Capacity, including a description of, and how the Company determines, which party should bear which costs;
 - b. any metrics that the Company uses in order to determine the necessity or propriety of an upgrade (e.g., maximum acceptable network utilization or congestion, maximum acceptable packet loss);
 - c. the criteria by which the Company chooses a particular type of upgrade (e.g., addition of an interconnection site, addition of Capacity at an existing site);
 - d. the allocation between the Company and the other Person of responsibility for payment for the upgrades; and
 - e. the dates any upgrades or downgrades were approved or denied, the interconnected Person or Persons affected by the approval or denial, and the type of upgrade or downgrade.
80. Describe and provide all documents relating to the effect of the proposed Transaction on the Company's investment of resources in communications security and the Company's existing cybersecurity technologies and practices, including:
- a. the extent to which the proposed Transaction would improve service quality and management of communications security and reliability risks in general;
 - b. whether, and to what extent, the combined entity plans to utilize the National Institute of Standards and Technology (NIST) Framework for Improving Critical Infrastructure Cybersecurity;
 - c. cybersecurity risk management challenges and improvements associated with the Transaction, including combining network infrastructure, enterprise risk management functions, procurement processes, and communications security personnel; the current states and target states of cybersecurity

risk management; and present cybersecurity gaps, and any actions, policies, and timeframes identified to close the gaps;

d. the methods and technologies the combined entity will use to enable real-time awareness of cyber risk across its combined network; and

e. how the combined entity will enhance communications security for its own customers and for the overall broadband ecosystem, including but not limited to the performance, integrity, and reliability of public safety communications imperatives that may rely on its networks or applications, such as E911, NG911, text-to-911, and emergency alerts.

81. Provide the Company's data as specified in Attachments, which seek data relating to: availability, subscribers, and ARPU; census block distribution areas; Delivery Technology Distribution Areas; Internet Access; Plans, Synthetic Bundles; Interconnection, and Site Data.

Definitions

The following definitions apply only to this Information and Data Request. They are not intended to set or modify precedent outside the context of this document. In this Information and Data Request, the following terms shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

1. “AT&T” or “the Company,” or “AT&T” means AT&T Inc., its domestic and foreign parents, predecessors, divisions, subsidiaries, affiliates, partnerships and joint ventures, and all directors, officers, employees, agents, and representatives of the foregoing. The terms “affiliate,” and “joint venture” refer to any Person in which there is partial (25 percent or more) or total ownership or control between the Company and any other Person.
2. The terms “and” and “or” have both conjunctive and disjunctive meanings.
3. The word “any” shall be construed to include the word “all,” and the word “all” shall be construed to include the word “any.” The word “each” shall be construed to include the word “every,” and the word “every” shall be construed to include the word “each.” All words used in the singular should be construed to include the plural, and all words used in the plural should be construed to include the singular.
4. The term “Attributable Interest” means: (i) for Cable Systems, any interest that is cognizable or attributable under Section 76.501 of the Commission’s Rules; (ii) for non-broadcast programming networks, any interest that is cognizable or attributable under Section 76.1000(b) of the Commission’s Rules; (3) for broadcast television stations, any interest that is cognizable or attributable under Section 73.3555 of the Commission’s Rules.
5. The term “Bundled Services” means, and information shall be provided separately for (a) MVPD Service , Internet Access Service and Telephony Service; (b) MPVD Service and Internet Access Service; (c) MPVD Service and Telephony Service; (d) Internet Access Service and Telephony Service, each sold as a package of services for a single price.
6. The term “Capacity” means capacity for efficient production 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 you know of no customary measure for a service, state the maximum amount of the service that could be provided efficiently over a one month period given existing facilities, equipment and personnel.
7. The term “customer” means an end User of any Relevant Service, as opposed to a distribution partner.
8. The term “DBS” means direct broadcast satellite.
9. The term “Delivery Technology” means any one of the following six types of technologies for providing MPVD Service, Internet Access Service and telephony service to Customer locations: (a) copper with no xDSL capability; (b) xDSL; (c) IPDSL; (d) FTTN without capability to provide MVPD Service; (e) FTTN with capability to provide MVPD Service; and (f) FTTP.

10. The term “Designated Market Area” or “DMA” means unique, county-based geographic areas designated by The Nielsen Company.
11. 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.
12. The term “documents” means all computer files and written, recorded, and graphic materials of every kind in the possession, custody, or control of the Company. The term “documents” includes without limitation drafts of documents, copies of documents that are not identical duplicates of the originals, and copies of documents the originals of which are not in the possession, custody, or control of the Company. 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 Company 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 Company’s 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 Company shall only produce one representative copy.
13. The term “Internet Access Service” means the provision to end Users of connectivity to the Internet 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 (“MMDS”).
14. The term “Internet Backbone Services” means services that route traffic between Internet Access Service, 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.
15. The term “Internet Traffic Exchange” means interconnection between Internet Access Service, Internet Backbone Services, Edge Providers, CDNs, and other Internet networks and services, where traffic is exchanged pursuant to an interconnection agreement or arrangement.
16. The term “Most Favored Nation clause” means any contractual provision between a Company and a seller of Video Programming, whether or not labeled a Most Favored Nation clause in the contract, that entitles the Company to prices, terms, or conditions at least as favorable as those

agreed to between the same seller of Video Programming and another distributor of Video Programming.

17. The term “Multichannel Video Programming Distributor” or “MVPD” means an entity, including but not limited to, a cable operator, or DBS operator that is engaged in the business of making available for purchase, by subscribers or customers, multiple channels of Video Programming.
18. The term “MVPD Service” means the distribution of Video Programming or Online Video Programming by an MVPD to consumers, including but not limited to, distribution as part of a programming package or tier or on an individual basis, and distribution as part of TV Everywhere or Specialized Services, regardless of whether such programming is distributed inside or outside of the MVPD’s footprint.
19. The term “Navigation Devices” means converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel Video Programming and other services offered over MVPD systems via the use of authentication or another form of conditional access.
20. The term “Online Video Distributor” or “OVD” means any entity that provides Video Programming by means of the Internet or other IP-based transmission path provided by a Person other than the OVD. Unless otherwise stated, an OVD does not include an MVPD inside its MVPD footprint or an MVPD to the extent it is offering Online Video Programming as a component of an MVPD subscription to customers whose homes are inside its MVPD footprint.
21. 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.
22. The term “Pay Per View” or “PPV” means a service that allows MVPD subscribers, for an additional fee, to order individual programs, generally live event programming.
23. The term “PEG” means Public, Educational and Governmental consistent with 47 U.S.C. § 531.
24. The term “Person” includes the Company, and means any individual, partnership, corporation (including a business trust), joint stock company, trust, unincorporated association, joint venture, Limited Liability Company or other entity, or a government or any political subdivision or agency thereof.
25. 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.
26. The term “Professional Video” means any video that is created or produced using professional-grade equipment, talent, and/or production crews, or for which media and/or entertainment companies hold or maintain the rights of distribution and/or syndication.
27. The term “Programming Network” means without limitation network Video Programming, whether delivered in standard or high definition, delivered directly to MVPDs and includes Regional Sports Networks.
28. The term “Regional Sports Network” or “RSN” means any Programming Network that (i) provides live or same-day distribution within a limited geographic region of sporting events of a

U.S. professional or college sports team or league and (ii) in any year, carries a minimum of either 100 hours of programming that meets the criteria of subheading (1), or 10% of the regular season games of at least one sports team that meets the criteria of subheading (1).

29. The term “relating to” means in the whole or in part constituting, containing, concerning, discussing, describing, analyzing, identifying, or stating.
30. The term “Relevant Area” means, and information shall be provided separately for,
- a. with respect to an MVPD (except DBS), each area in which the MVPD provides MVPD Service;
 - b. with respect to DBS, the United States;
 - c. with respect to an OVD, the United States;
 - d. with respect to Video Programming,
 - i. for Video Programming acquired or provided by an MVPD or OVD (except RSN programming and broadcast television signals as discussed in subparts (ii) and (iii), respectively, below), the United States;
 - ii. for RSN programming, each network’s local territory (a/k/a “zone(s)”) as defined in terms of zip codes for DBS customers and county boundaries for customers; and
 - iii. for broadcast television signals licensed to MVPDs for retransmission to their subscribers pursuant to a retransmission consent granted by the broadcast television station or the FCC’s must-carry rules, each DMA within which the station broadcasts;
 - e. with respect to local broadcast television, each DMA in the United States in which the Company offers MVPD Service;
 - f. with respect to Internet Access Service, the areas in which the Company provides such service; and
 - g. with respect to Internet Backbone Services, the United States.
31. The term “Relevant Service” as used herein, means and information shall be provided separately for
- a. MVPD Service
 - b. OVD service
 - c. Internet Access Service
 - d. Video Programming
 - e. Internet Traffic Exchange, and information shall be provided separately for:
 - i. Transit;
 - ii. Internet Paid Peering;
 - iii. Internet Settlement-free peering; and
 - iv. Any other interconnection arrangements between Internet networks.
32. The term “Settlement-free Peering” means peering where there are no payments exchanged between network providers for the exchange of traffic.
33. The term “Sports Programming” means Video Programming related to or involving sporting events associated with sports teams, leagues, and organizations, and includes programming associated with the NFL Sunday Ticket.

34. The term “Standalone Services” means, and information shall be provided separately for, (a) MVPD Service; (b) Internet Access Service; and (c) Telephony Service, each sold as a separate service for a single price.
35. The Term “Synthetic Bundle” means an offering made to customers of one or more of Company’s Relevant Services paired with one or more of another party’s Relevant Services.
36. The term “Telephony Service” means any service offering that provides a customer the ability to make a voice telephone call, including Voice over Internet Protocol (“VoIP”) services or similar services, regardless of the physical facilities (e.g., copper wire, coaxial cable, fiber, fixed wireless) over which the call is transmitted, but excluding CMRS as that term is defined in section 20.3 of the Commission’s rules.
37. The term “Transaction” means the Agreement and Plan of Merger among DIRECTV, AT&T Inc., and Steam Merger Sub LLC, dated May 18, 2014, to bring about the acquisition of DIRECTV by AT&T.
38. The term “Transit Service” means a service arrangement where customer pays Internet Backbone Services provider to send and receive traffic to and from destinations that can be either on or off the provider’s network.
39. The term “TV Everywhere” means the MVPD initiative which allows consumers of certain services to access Video Programming on a variety of fixed and mobile Internet-connected devices.
40. The term “User” means a consumer who accesses a Relevant Service.
41. The term “Video-on-Demand” or “VOD” means a service that allows subscribers to MVPD Service to view individual programs at the time of their choosing including, but not limited to, motion pictures, Professional Video, Video Programming, Programming Networks. VOD includes without limitation both free programs and programs for which there is a charge.
42. The term “Video Programming” means programming provided by, or generally considered comparable to programming provided by, a television broadcast station or cable network, regardless of the medium or method used for distribution, and includes but is not limited to: programming prescheduled by the programming provider (also known as scheduled programming or a linear feed); programming offered to viewers on an on-demand, point-to-point basis (also known as VOD or PPV); short programming segments (also known as clips); programming that includes multiple video sources (also known as feeds, including camera angles); programming that includes video in different qualities or formats (including high-definition, 3D and 4K); and films.
43. The term “WLL” means AT&T’s LTE-based fixed wireless local loop broadband service, which utilizes 20 MHz of dedicated spectrum, and is generally offered as a wired broadband alternative in rural areas.

Instructions

1. Unless otherwise specified, all Information and Data Requests cover the period from January 1, 2012, through the date of the Request. “All references to year refer to calendar year. Unless otherwise specified, each request that calls for documents requires the Company to produce all responsive documents that were created or received by the Company on or after January 1, 2012. Where information, rather than documents, is requested, provide it separately for each year. Where yearly data is not yet available, provide data for the calendar year to date. If calendar year information is not available, supply the Company’s fiscal year data indicating the twelve-month period covered, and provide the Company’s best estimate of calendar year data.”

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, as set forth in the Instructions for Submission of Electronic Documents. The Commission does not require the submission of paper copies of these documents at this time, but reserves the right to require their submission at a later time.

3. Each responsive document shall be submitted in its entirety, even if only a portion of that document is responsive to a 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 Requests shall also be submitted.

4. 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.

5. Data provided in response to this Request should include a list of all parameters/assumptions on which the data are based.

6. 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 Company.

7. For each statement submitted in response to the Requests, indicate, by number and subsection, the Request to which it is responsive.

8. For each document submitted in response to the Requests, identify the Person(s) from whose files the document was retrieved (i.e., the custodian). If any document is not dated, if known, state the date on which it was prepared. If any document does not identify its author(s) or recipient(s), provide, if known, the name(s) of the author(s) or recipient(s) as metadata in accordance with Instructions for Submission of Electronic Documents. The Company must identify with reasonable specificity all documents provided in response to these Requests. Where more than one identical copy of a requested document exists, the Company 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 Submission of Electronic Documents.

9. 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.

10. Provide a glossary of industry and company terminology.

11. The specific Requests made herein are continuing in nature. The Company is required to produce in the future any and all documents and information that are responsive to the Requests made herein but not initially produced at the time, date, and place specified herein. In this regard, the Company must supplement its responses (a) if the Company learns 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 Company after the initial production.

12. 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 Company has designated to be withheld as entirely privileged, the Company 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, the Company shall code the substitute document submitted as specified in and provide as metadata the information in the attached MetaData Table of Requested Fields.

13. For each Document identified on the Company privilege log:

- 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 Company is asserting for the document (e.g., "attorney-client privilege");
- h. Provide the number(s) of the 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.

14. The Company's privilege log shall also conform with all of the following requirements:

- a. Provide a separate legend identifying each author, addressee, and recipient identified on the Company's 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 Company 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 Company'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.

Instruction for Electronic Production of Documents and Electronically Stored Information

Introduction

This document contains the standard specifications and procedures for submitting to the Federal Communications Commission electronic versions of documents in response to an Information Request.

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

1. 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-00000011;ABC-JD-00000016;ABC-JD-00000021	ABC-JD-00000001 – ABC-JD-00000025
ABC-JD-00000011	ABC-JD-00000015	ABC-JD-00000001		ABC-JD-00000001 – ABC-JD-00000025
ABC-JD-00000016	ABC-JD-00000020	ABC-JD-00000001		ABC-JD-00000001 – ABC-JD-00000025
ABC-JD-00000021	ABC-JD-00000025	ABC-JD-00000001		ABC-JD-00000001 – ABC-JD-00000025

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 Commission 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 Commission 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 separately provide 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 government 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 Commission staff as to the format for the production of such data.

G. Foreign-Language Materials

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

2. De-duplication

Before doing any de-duplication, provide Commission 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 Commission. The Commission 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 deduplicated 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 Commission staff and consent obtained prior to the use of such techniques for production.

3. Document Numbering

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 (\ / : * ? " < > | ~ @ ^).

4. 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.

5. 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 Commission 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 Commission 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 Commission can confirm the problems are resolved.

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

7. 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 Commission 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 Commission will return any infected media for replacement, which may affect the timing of the Company's compliance with this Information Request.

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

The Commission 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. Replacement document image file names, likewise, 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

Review carefully as fields have been added or modified from the Commission's last set of specifications.

A "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 Type	Hard-Copy	Email	Other ESI	Calendar Items
COMPANIES	Company submitting data	Multi-Entry	X	X	X	X
MEDIAID	The unique identifier on the physical piece of media (e.g., ABC001)	Note Text	X	X	X	X
VOLUMENAME	Production volume number (e.g., ABC001-001)	Note Text	X	X	X	X
CUSTODIAN	Custodian(s) / source(s) -- format: <i>Last, First</i> or <i>ABC Dept.</i> Be consistent across all ESI sources/productions.	Multi-Entry	X	X	X	X
TIMEZONE	The TimeZone in which the custodian is located.	Note Text		X	X	X
HASHMD5	Document MD5 hash value (used for deduplication or other processing)	Note Text		X	X	X
HASHSHA	Document SHA1 hash value (used for deduplication or other processing)	Note Text		X	X	X
SEARCHVALUES	List of search terms used to identify record as responsive (if used)	Multi-Entry	X	X	X	X
BEGDOC#	Start Identification number (including prefix) -- No spaces or special characters	Note Text	X	X	X	X
ENDDOC#	End Identification number (including prefix) -- No spaces or special characters	Note Text	X	X	X	X
DOCID	Must equal the value appearing in the BEGDOC# field and be UNIQUE	Note Text	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 Text	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 Text	X	X	X	X
EPROPERTIES	Indicate all that apply : <u>Record Type:</u> E-Doc, E-Doc Attachment, Email, Email Attachment, Hard Copy, Calendar Appt <u>Other Notations:</u> Translation of [DOCID of original], Translated as [DOCID of Translation] <u>Privilege Notations:</u> 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-Entry	X	X		X
FROM	Author of the Email or Calendar item (as formatted on the original)	Note Text		X		X
TO	Recipients of the Email or Calendar Item (as formatted on the original)	Multi-Entry		X		X
CC	Names of the individuals who were copied on the Email or Calendar Item (as formatted on the original)	Multi-Entry		X		X
BCC	Names of the individuals who were blind-copied on the Email or Calendar Item (as formatted on the original)	Multi-Entry		X		X
SUBJECT	Email or calendar subject	Note Text		X		X
DATE_HC	Date of hard copy documents, if coded. Format: YYYYMMDD.	Date	X			
DATECREATED	This is a multipurpose date field. Populate with: DATESAVED for E-Docs; DATESENT for Emails; DATEAPPTSTART for calendar appointments; 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 Text		X		

INTERNETMSGID	Globally unique identifier for a message which typically includes messageid and a domain name. Example: <0E6648D558F338179524D555@m1p.innovy.net	Note Text		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 Text		X		X
INREPLYTOID	Internet message ID of the Email replied to	Note Text		X		
CONVERSATIONINDEX	Email Thread Identification	Note Text		X		X
IMPORTANCE	Email flag indicating priority level set for message	Note Text		X		X
DELIVRECEIPT	Delivery receipt request notification for Email messages	Note Text		X		X
READRECEIPT	Read Receipt request notification for Email messages	Note Text		X		X
SENSITIVITY	Sensitivity field from Email messages	Note Text		X		X
REVISION	Revision number extracted from metadata of native file	Note Text			X	
DATESAVED	Date native file was last modified. Format: YYYYMMDD.	Date			X	
DATEPRINTED	Date native file was printed (metadata derived from Word documents, etc.)	Date			X	
EORGANIZATION	Company field extracted from the metadata of a native file	Note Text			X	
EAUTHOR	Author field value extracted from the metadata of a native file	Note Text			X	
LAST_AUTHOR	Last Saved By field value extracted from metadata of a native file	Note Text			X	
ESUBJECT	Subject field value extracted from metadata of a native file	Note Text			X	
FILESIZE	File size in Bytes (integer value only - do not include unit of measure, thousands character, or decimal places - e.g., 1008 not 1,008)	Integer		X	X	X
FILENAME	File name of native file (E-Docs or attachments to Email)	Note Text		X	X	X
APPLICATION	Application used to create native file (e.g., Excel, Outlook, Word)	Note Text		X	X	X
FILEEXTENSION	File extension of native file	Fixed Length 5 chars		X	X	X
FILEPATH	File path to native file as it existed in original environment, prepended with Custodian Name.	Multi-Entry		X	X	X
DOCLINK	File path location to the current native file location on the delivery medium	Note Text			X	
DATEAPPTSTART	Start date of calendar appointment. Format: YYYYMMDD.	Date				X
TIMEAPPTSTART	Start time of calendar appointment. Format: HH:MM:SS (use 24 hour times, e.g., 13:32 for 1:32 pm; timezone indicators cannot be included)	Time				X
DATEAPPTEND	End date of calendar appointment. Format: YYYYMMDD.	Date				X
TIMEAPPTEND	End time of calendar appointment. Format: HH:MM:SS (use 24 hour times, e.g., 13:32 for 1:32 pm; timezone indicators cannot be included)	Time				X

