**Supplemental AT&T INFORMATION AND DISCOVERY REQUESTS**

**MB Docket No. 14-90**

1. Verify that AT&T’s (the “Company’s”) population and density calculations for each of the one-square mile areas submitted to the Commission on October 7 (the “October 7 Response”) in response to Information Request 58.b.iii are accurate. In certain instances, the Company’s population and density results do not correlate appropriately when the geographic unit of the grid is fixed at one-square mile. If any of the submitted population or density results is inaccurate, correct and submit accurate data and explain, in detail, any assumptions or calculations used in creating that data.
2. The data supplied in Exhibits 58.b.1 and Exhibit 81.j of the October 7 Response identify FWLL coverage in areas where no cell site is identified and cell sites where no FWLL coverage is identified. If the reported data is inaccurate, provide accurate data. If the data is accurate, describe the method of providing FWLL coverage without a cell site.
3. Explain in detail the Company’s plans to share existing mobile spectrum (PCS/AWS/Cellular/Lower 700 MHz) with any spectrum proposed for the FWLL deployment, and identify the possible spectrum bands for the FWLL devices that the Company intends to use for the proposed FWLL deployment.
4. For “FWLL\_UMTS\_BEST\_SERVER\_20140610” in Exhibit 58.b of the October 7 Response,
   1. Explain in detail how the Company calculated and concluded that 12,000 cell locations is sufficient to provide 10 Mbps at the cell edge more than 90 percent of the time;
   2. Provide the average data rate (Mbps) that the Company expects to achieve for all of the depicted FWLL coverage geographical areas. In addition, provide (i) all assumptions and calculations that the Company relied on to calculate the average data rate; and (ii) all data generated by lab results or field tests since FWLL\_UMTS\_BEST\_SERVER\_20140610 was created that might affect the Company’s expectations or conclusions about the average data rate, with a detailed explanation of how the lab results affect the Company’s expectations or conclusions about the average data rate. This is an ongoing request that the Company should update as lab results or field tests are generated.
   3. Provide the data rate that the Company relied on to define the edges of the depicted coverage. In addition, supply (i) all assumptions and calculations that the Company relied on to calculate that cell-edge data rate; and (ii) all data generated by lab results or field tests that might affect the Company’s expectations or conclusions about the cell-edge data rate, with a detailed explanation of how those data might affect the Company’s expectations or conclusions about the cell-edge data rate. This is an ongoing request that the Company should update as lab results or field tests are generated.
5. Complete Information Request 58.1 in the October 7 Response by providing a definition of “cell edge” that includes the signal strength, signal to noise ratio, and link budget.
6. Complete the tables included in Attachment A by providing:
   1. In addition to the 6-Mbps speed tier results reported at Exhibit 58.i.1 at 3 in the October 7 Response, all performance- and capacity-simulation for the FWLL.
   2. In addition to the 3-sectors case results reported at Exhibit 58.i.1 at 13 in the October 7 Response, all performance and capacity simulation results, and any related documents for the FWLL.
   3. In addition to the 3.6 Km site radius results reported at Exhibit 58.g.2 at 3 and 58.i.1 at 5 and 11 (*i.e*., coverage radii from 4 Km to 10 Km), any performance and capacity simulation results available to the Company, and any related documents for the FWLL.   
        
      Attachment A should be updated as new lab results or field tests are generated.
7. Describe, and provide all documents relating to, pricing of the FWLL service. If such documents are included in the October 7 Response, identify those documents by Bates number.
8. State when the Company expects to complete the field trials described in 58.f and 58.g of the October 7 Response and describe any preliminary results of those field trials.
9. With respect to the Company’s responses to Information Request 59.l in the October 7 Response, explain in detail (a) how the Company calculated the Lifetime Value (“LTV”) for FWLL customers subscribing to in-house DIRECTV video post-transaction; (b) how the monthly churn rate implied by this LTV is consistent, if at all, with the Company smallest predicted value for monthly churn (which is the pre-merger prediction for the Company’s DSL service in rural markets); and (c) what the monthly churn rate would be for FWLL customers subscribing to a synthetic DIRECTV video bundle absent the Transaction, how that monthly churn rate compares to the expected monthly churn rate of FWLL customers subscribing to DIRECTV video post-Transaction, and provide all documents, data and calculations related to the pre- and post-Transaction churn rates.

**Attachment A**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3-Sectors/4x2 MIMO Case: # of Subs/Sector** | | | |  |  | **6-Sectors/4x2 MIMO Case: # of Subs/Sector** | | | |  |
|  | 4 Km | 6 Km | 8 Km | 10 Km |  |  | 4 Km | 6 Km | 8 Km | 10 Km |
| 6 Mbps Tier |  |  |  |  |  | 6 Mbps Tier |  |  |  |  |
| 12 Mbps Tier |  |  |  |  |  | 12 Mbps Tier |  |  |  |  |
| 18 Mbps Tier |  |  |  |  |  | 18 Mbps Tier |  |  |  |  |

Table 2

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3-Sectors/4x2 MIMO Case: Cell edge data rate (Mbps)** | | | | |  | **6-Sectors/4x2 MIMO Case: Cell edge data rate (Mbps)** | | | | |
|  | 4 Km | 6 Km | 8 Km | 10 Km |  |  | 4 Km | 6 Km | 8 Km | 10 Km |
| 6 Mbps Tier |  |  |  |  |  | 6 Mbps Tier |  |  |  |  |
| 12 Mbps Tier |  |  |  |  |  | 12 Mbps Tier |  |  |  |  |
| 18 Mbps Tier |  |  |  |  |  | 18 Mbps Tier |  |  |  |  |

Table 3

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3-Sectors/4x4 MIMO Case: # of Subs/Sector** | | | |  |  | **6-Sectors/4x4 MIMO Case: # of Subs/Sector** | | | |  |
|  | 4 Km | 6 Km | 8 Km | 10 Km |  |  | 4 Km | 6 Km | 8 Km | 10 Km |
| 6 Mbps Tier |  |  |  |  |  | 6 Mbps Tier |  |  |  |  |
| 12 Mbps Tier |  |  |  |  |  | 12 Mbps Tier |  |  |  |  |
| 18 Mbps Tier |  |  |  |  |  | 18 Mbps Tier |  |  |  |  |

Table 4

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3-Sectors/4x4 MIMO Case: Cell edge data rate (Mbps)** | | | | |  | **6-Sectors/4x4 MIMO Case: Cell edge data rate (Mbps)** | | | | |
|  | 4 Km | 6 Km | 8 Km | 10 Km |  |  | 4 Km | 6 Km | 8 Km | 10 Km |
| 6 Mbps Tier |  |  |  |  |  | 6 Mbps Tier |  |  |  |  |
| 12 Mbps Tier |  |  |  |  |  | 12 Mbps Tier |  |  |  |  |
| 18 Mbps Tier |  |  |  |  |  | 18 Mbps Tier |  |  |  |  |