

DIRECT TESTIMONY

OF

QIN LIU

TELECOMMUNICATIONS DIVISION

ILLINOIS COMMERCE COMMISSION

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1 **I. Introduction**

2

3 **Q. Please state your name and position.**

4

5 A. My name is Qin Liu and I am a policy analyst in the Telecommunication Division
6 of the Illinois Commerce Commission. My business address is: 527 E Capitol
7 Ave., Springfield, IL 62601.

8

9 **Q. Please describe the issues that you address in this testimony.**

10

11 A. In answering this question, and throughout my testimony, I stress that I am not
12 providing a legal opinion. Rather, I am identifying the basic policy and factual
13 questions that appear relevant in evaluating Verizon’s petition for a complete
14 waiver of the requirements of Section 13-517 of the Illinois Public Utilities Act
15 (“PUA”). Staff plans to provide its legal analysis in its briefs.

16

17 I analyze the advanced services that the Verizon North Inc. and Veizon
18 South Inc. (collectively, “Verizon”) offers to its different customer groups, and
19 how to assess whether the company meets the conditions under which the
20 Commission may grant a Section 13-517 waiver. I also address the appropriate
21 interpretations of various terms in Section 13-517, including ‘offer’, ‘provide’,
22 ‘customers’, ‘unduly economically burdensome’, ‘adverse economic impact’, and
‘impractical to implement’. Finally I present my overall recommendations.

23

24 **Q. Please summarize your findings regarding Verizon’s request for a section 13-
25 517 waiver and your recommendations.**

26

27

28 A. The company has failed to demonstrate that it meets the statutory conditions for a
29 waiver of the requirements of Section 13-517. As shown in the following
30 sections of this testimony, it has failed to provide the required crucial information
31 for Staff to conduct an adequate analysis and for the Commission to have an
32 adequate record. The data provided by Verizon so far is of poor quality, and Staff
33 has been unable to extract the required information from what was provided by
34 the company. As a result, Staff has not been able to conduct an adequate
35 analysis. Therefore, I recommend denial of Verizon's waiver request based on
36 the record evidence presented to date. I will reevaluate my recommendation
37 should Verizon provide additional necessary information.

38

39 **II. Requirements of Section 13-517(a) of The PUA**

40

41 **Q. Please describe your understanding of the requirements of Section 13-517(a)**
42 **of the PUA regarding advanced services deployment.**

43

44 A. Section 13-517(a) of the Public Utilities Act states:

45

Every Incumbent Local Exchange Carrier (Telecommunication
46 Carrier that offers or provides a noncompetitive
47 telecommunications service) shall offer or provide advanced
48 services to not less than 80% of its customers by January 1, 2005.¹

49

50 Advanced services are defined in Section 13-517(c) of the PUA as 'services
51 capable of supporting, in at least one direction, a speed in excess of 200 kilobits
52 per second (kbps) to the network demarcation point at the subscriber's premises.'²

53

54 **Q. Is the 80% advanced services requirement only applicable to Incumbent**
55 **Local Exchange Carriers (ILECs)?**

¹ Section 13-517(a) of the Public Utilities Act.

² Section 13-517(c) of the Public Utilities Act.

56
57 A. Yes. By its terms, Section 13-517(a) is only applicable to Incumbent Local
58 Exchange Carrier (ILEC). Thus, Competitive Local Exchange Carriers (CLECs)
59 are not subject to the 80% advanced service requirement.

60
61 **Q. Does every ILEC, in particular, Verizon, have to meet the 80% advanced**
62 **services requirement by January 1, 2005?**

63
64 A. Yes, the 80% advanced services requirement is applicable to “every” ILEC.
65 However, Section 13-517(b) allows for a full or partial waiver of this requirement
66 if an ILEC demonstrates to the Commission that it meets certain conditions.
67 Therefore, Verizon will have to meet the 80% advanced service requirement by
68 January 1, 2005 unless this Commission grants it a waiver under Section 13-
69 517(b) of the PUA.

70
71 **Q. Does Section 13-517 of the PUA require the deployment of advanced services**
72 **to 80% of Verizon’s customers in each of Verizon’s exchanges?**

73
74 A. No. Section 13-517 of the PUA provides that ILECs “shall offer or provide
75 advanced telecommunications services to not less than 80% of its customers by
76 July 1, 2005”, and does not mention the terms “exchange” or “serving
77 exchanges”. Thus, Section 13-517 does not require Verizon to meet the 80%
78 requirement in *each* of its serving exchanges. In determining whether Verizon
79 meets the 80% requirement, the Commission should look at the percentage of
80 Verizon’s aggregate customers to whom Verizon offers or provides advanced
81 services.

82

83 **Q. Does Section 13-517 of the PUA require that Verizon offer advanced services**
84 **in 80% of its serving exchanges?**

85
86 A. No. As I previously stated, Section 13-517 does not require Verizon to offer
87 advanced services in 80% (or any other specific percentage) of its serving
88 exchanges. Neither does the PUA prescribe any specific way for Verizon to meet
89 the 80% requirement.

90
91 **Q. Does Section 13-517 require Verizon to deploy *specific* types of technologies**
92 **to satisfy its Section 13-517 obligations?**

93
94 A. No. Section 13-517 does not define “advanced services” by technology type.
95 Rather, it defines ‘advanced services’ by transmission speed: “services capable of
96 supporting, in at least one direction, a transmission speed in excess of 200 kilobits
97 per second (kbps) to the network demarcation point at the subscriber’s
98 premises.”³ Thus, Section 13-517 neither requires nor excludes any specific type
99 of technology for purposes of compliance with the advanced services
100 requirement. This technology neutrality provision allows carriers the flexibility
101 and freedom to deploy emerging new technologies for the provisioning of the
102 most cost-efficient advanced services.

103
104 **III. The Waiver Requirements of Section 13-517(b)**

105
106 **Q. Under what conditions may the Commission grant a Section 13-517(b)**
107 **waiver?**

108
109 A. Section 13-517(b) of the PUA states:
110

³ Section 13-517(c) of the Public Utilities Act.

111 The Commission is authorized to grant a full or partial waiver of
112 the requirements of this Section upon verified petition of any
113 Incumbent Local Exchange Carrier ("ILEC") which demonstrates
114 that full compliance with the requirements of this Section would be
115 unduly economically burdensome or technically infeasible or
116 otherwise impractical in exchanges with low population density. *
117 * * The Commission shall grant such petition to the extent that,
118 and for such duration as, the Commission determines that such
119 waiver:

120
121 (1) is necessary:

122 (A) to avoid a significant adverse economic impact on users
123 of telecommunications services generally;

124 (B) to avoid imposing a requirement that is unduly
125 economically burdensome;

126 (C) to avoid imposing a requirement that is technically
127 infeasible; or

128 (D) to avoid imposing a requirement that is otherwise
129 impractical to implement in exchanges with low
130 population density; and

131
132 (2) is consistent with the public interest, convenience, and
133 necessity.⁴

134
135
136 **Q. Verizon's request for a waiver is based, at least in part, on the claim that**
137 **deploying advanced services to 80% of its customers would be "unduly**
138 **economic burdensome". Does Section 13-517 explicitly define the phrase**
139 **"unduly economically burdensome"?**

140
141 A. No. Section 13-517 of the PUA does not define or explain what should be
142 considered "unduly economically burdensome".

143
144 **Q. Please describe an appropriate approach or standard to determine when it is**
145 **'unduly economically burdensome' for a carrier to deploy advanced services**
146 **to 80% of the customers?**

147
148 A. This standard should be based on the concepts of incremental cost and
149 incremental revenue. Incremental costs refer to the 'extra' costs incurred if the

150 carrier (Verizon in this proceeding) is to offer advanced services beyond its
151 current deployment to meet the 80% requirement of the PUA. The incremental
152 revenue refers to the ‘extra’ revenue that would potentially be generated from the
153 ‘extra’ advanced services customers. The 80% requirement of Section 13-517 of
154 the PUA should be deemed as ‘unduly economically burdensome’ *if and only if*
155 the incremental cost is ‘significantly’ greater than the incremental revenue of
156 meeting the requirement.

157

158 **Q. Should the Commission establish a generic or general standard to apply to**
159 **all carriers in assessing whether compliance with the requirements of Section**
160 **13-517 would be “unduly economically burdensome”?**

161

162 A. Although I recommend that the Commission establish the general framework
163 within which it will determine whether compliance is “unduly economically
164 burdensome” – that is, in the context of whether the incremental cost associated
165 with compliance are greater than the incremental revenue – I do not think it is
166 either advisable or possible to establish a specific test or standard to be applied in
167 all cases. I recommend that the Commission assess whether compliance would be
168 “unduly economically burdensome” on a case-by-case basis, since the particular
169 facts and circumstances can and will vary significantly between carriers. To
170 illustrate, consider the following hypothetical case. Suppose the costs of meeting
171 the 80% requirement for a carrier exceeded the incremental revenues by \$10
172 million. If this company were in excellent financial health, and had, for example,
173 \$200 million in cash or other retained earnings, the Commission likely could

⁴ Section 13-517(b) of the Public Utilities Act.

174 determine that it would not be economically burdensome to meet the requirement.
175 In contrast, if the company were in poor financial health, the \$10 million could in
176 fact be economically burdensome. Other important factors in this regard could
177 include such things as the size of the company, the number of customers, and so
178 forth. Such important factors vary between carriers, and in many cases vary
179 significantly. The Commission should preserve its ability to fully judge each case
180 on its merits, and to consider the many factors that may influence whether
181 compliance with the requirements of Section 13-517 would be “unduly
182 economically burdensome”.

183
184 **Q. What is Verizon’s position concerning the meaning of “unduly economically**
185 **burdensome” in meeting the requirements of Section13-517(a)?**

186
187 A. It appears that Verizon believes that any excess of incremental costs over
188 incremental revenues would be unduly economically burdensome. If this is in
189 fact Verizon’s position, then I believe the Commission should find such a
190 standard to be unreasonable on its face and should reject it. In order to meet its
191 burden of proof to be granted a waiver, Verizon must (i) accurately and
192 completely identify the excess of incremental costs over incremental revenues to
193 comply with Section 13-517, and (ii) fully develop and explain why, in relation to
194 Verizon and its operations, such excess costs are “unduly economically
195 burdensome.” Verizon should do so in its rebuttal testimony as a requirement of
196 meeting its burden of proof in support of its request for a waiver.

197

198 **Q. Verizon also appears to contend that it should receive a Section 13-517**
199 **waiver because deploying advanced services to 80% of its customers would**
200 **have “a significant adverse economic impact on users of telecommunications**
201 **services generally”. Does Section 13-517 of the PUA explicitly define or**
202 **explain the phrase “significant adverse economic impact”?**

203
204 A. No. Section 13-517 of the PUA does not define or explain the phrase “significant
205 adverse economic impact”, nor does it provide any guideline on how to assess or
206 quantify the ‘adverse economic impact’ on users of telecommunications services.

207
208 **Q. What would be the appropriate way to assess the ‘adverse economic impact**
209 **on users of telecommunications services’?**

210
211 A. First, Section 13-517 would not impose an ‘adverse economic impact’ on users of
212 telecommunications services if Verizon’s incremental cost of meeting the 80%
213 requirement is no greater than associated incremental revenue. Only when
214 incremental cost is *significantly* greater than incremental cost, would there be an
215 *adverse economic impact* on users generally. In this situation, the company
216 would recover the advanced services revenue shortfall (the extent to which
217 incremental costs exceed the incremental revenue) by including this amount in the
218 revenue requirement for other services.⁵ One way to assess the magnitude of the
219 ‘adverse economic impact’ under these conditions is to spread any excess of
220 incremental costs over incremental revenue across all of Verizon’s access lines.
221 If the ‘extra’ costs imposed on each access line is ‘significant’ in relation to the
222 level of affordability set by this Commission (which is \$20.39⁶), then I would

⁵ Advanced services are non-supported services and thus are not eligible for ‘universal service’ subsidy.

⁶ Note that the level of affordability set by the Commission is based on the average of retail rates for rural Verizon residential customers. See *ICC Second Interim Order on Rehearing*, Illinois Independent Telephone Association Petition for Initiation of an Investigation of the Necessity of Universal Service

223 conclude that 13-517 requirement would impose ‘adverse economic impact’ on
224 users of telecommunications services provisioned by Verizon.

225

226 **Q. Do you assume that Verizon will have to absorb all of the cost of satisfying**
227 **the Section 13-517 requirements alone, not subsidized by external sources**
228 **(e.g., universal service fund)?**

229

230 A. Yes. Section 13-517 of the PUA does not propose to establish a ‘universal
231 service fund’ for advanced services, nor does it outline any other forms of
232 external subsidy. Therefore, it is reasonable to conclude that the carriers are
233 expected to absorb the costs of meeting Section 13-517 requirements themselves.

234

235 **Q. In considering whether a Section 13-517 waiver should be granted, should**
236 **the Commission consider a permanent waiver?**

237

238 A. No. First, Section 13-517 does not provide for a permanent waiver. Section 13-
239 517 states that the Commission shall grant a waiver “*to the extent that, and for*
240 *such duration as*, the Commission determines that such waiver” is necessary to
241 avoid the specified conditions. There are also policy reasons why the
242 Commission should not consider a permanent Section 13-517 waiver.
243 Technology and other demographic factors change over time. What is true today
244 may not be true five years from now. The factors or evidence that may induce the
245 Commission to grant Verizon a Section 13-517 waiver today may no longer exist
246 several years from now. In other words, even if the company qualifies for a

Support Fund in Accordance with Section 13-301(d) of the Public Utilities Act; Illinois Commerce Commission On its Own Motion, Investigation into the Necessity of and, of Appropriate, the Establishment of a Universal Service Fund Pursuant to Section 13-301(d) of the Public Utilities Act, ICC Dockets 00-0233 and 00-0335 Consolidated (March 13, 2002).

247 Section 13-517 waiver today, it may not qualify for a waiver in the future.
248 Therefore, the Commission should not grant a permanent Section 13-517 waiver.
249 I recommend that the Commission consider a waiver of no more than five year if
250 it decides to grant one. Staff witness Hanson further provides specific evidence to
251 support a maximum five-year waiver in this proceeding.

252
253 **Q. Based on your analysis (in the following sections) and information provided**
254 **by the company, do you recommend that the Commission grant the company**
255 **a 13-517 waiver?**

256
257 A. No. As demonstrated in the following sections of this testimony, the company
258 has not provided sufficient information to demonstrate that it meets the statutory
259 conditions for a waiver of the requirements of Section 13-517. And a lot of
260 crucial information that is needed for Staff to conduct an adequate analysis and
261 for the Commission to have an adequate record is not provided the company. The
262 data provided by Verizon so far is of poor quality, and Staff has been unable to
263 extract usable information from what was provided by the company. As a result,
264 Staff has not been able to conduct an adequate analysis. Thus, I recommend
265 denial of Verizon's waiver request based on the record evidence presented to
266 date. I will reevaluate my recommendation if Verizon provides additional
267 necessary information.

268
269 **IV. Financial Analysis of Meeting Section 13-517 Obligations**

270
271 **Q. Does Verizon claim that it has met its Section 13-517 obligations?**
272

273 A. Yes. Verizon claims that its existing offerings satisfy its Section 13-517
274 obligations.

275

276 **Q. Then on what basis is Verizon petitioning for a Section 13-517 waiver?**

277

278 A. The waiver request has been submitted in the alternative, in case Verizon does not
279 prevail on its contention that it currently meets its Section 13-517 obligations. I
280 would note that Section 13-517 nowhere provides for Commission certification of
281 compliance with Section 13-517(a) as requested by Verizon. Staff will address
282 whether Verizon's request in this regard is proper in its briefs. Notwithstanding
283 the legal propriety of Verizon's request for a certification of compliance with
284 Section 13-517, the same underlying issues need to be addressed in connection
285 with Verizon's waiver request. Thus, I will analyze Verizon's contention that it
286 offers or provides advanced services in the context of its waiver request.

287

288 **Q. Are the company's cost and revenue estimates based on the assumption that**
289 **only digital subscriber line (DSL) services qualify as Section 13-517 advanced**
290 **services?**

291

292 A. Yes, the company's petition and the financial analysis in support of its petition are
293 based on the assumption that only DSL services qualify as Section 13-517
294 services. It assumes that frame relay (FR), high capacity digital (HCD) and
295 asynchronous transfer mode (ATM) services, in contrast, do not qualify as
296 Section 13-517 advanced services.

297

298 **Q. Is this assumption correct?**

299

300 A. No. As demonstrated in section V, the company does not offer FR, ATM or HCD
301 services to its residential or small business. That is, FR, ATM and HCD are not
302 advanced services *offered to residential or small business customers*. Rather,
303 these services are advanced services offered to *big business customers*.
304 Therefore, the company's financial analysis used to support its waiver request is
305 based on an incorrect assumption.

306
307 **Q. What is the impact or consequence of this inappropriate assumption?**

308
309 A. This flawed assumption causes the company to arrive at an incorrect current
310 coverage figure for its advanced service offerings. Specifically, by excluding FR,
311 ATM and HCD from advanced services offered to big business customers, the
312 company's estimated advanced services coverage figure is lower than the true
313 level. As a consequence, Verizon's estimated cost of meeting its Section 13-517
314 obligation is inflated and higher than the true level.

315
316 **Q. In addition to this inappropriate assumption, does Verizon's analysis of the**
317 **costs to deploy DSL services to 80% of its customers suffer from any other**
318 **significant flaws?**

319
320 A. Yes. The company expects to have DSL capabilities in **xx** of its 413 exchanges by
321 yearend 2002.⁷ The cost estimates to support Verizon's waiver request are for
322 "deployment of DSL capabilities in [the remaining] **xx** exchanges in Illinois".⁸
323 Thus, in seeking a waiver of the requirement under Section 13-517 to provide

⁷ There are 16 exchanges in which DSL is deployed as of yearend 2001 (Exhibit DBT-1). There are 4 exchanges in which DSL has been recently deployed and 17 exchanges in which DSL is planned to be deployed by yearend 2002 (Company response to Staff Data Request QL-23).

⁸ Page 14 (L287-289) of Mr. Trimble's direct testimony.

324 advanced services to 80% of its customers, the company assumes that it must
325 have DSL capabilities deployed in every one of its **xx** serving exchanges.

326 The PUA does not prescribe any specific way for an ILEC to satisfy the
327 80% advanced services requirements. For example, Verizon could strive to meet
328 the 80% requirement by deploying DSL starting from its largest exchanges (or
329 wire centers) and going down the list until it expands advanced services
330 capabilities to 80% of its customers. In this hypothetical example, the company
331 would need to deploy DSL capabilities in *far fewer* than **xx** exchanges in order to
332 meet the 80% requirement. The resulting costs of meeting the 80% requirement
333 would undoubtedly be much lower than the estimate Verizon currently presents in
334 this proceeding. Even the company itself does not claim that its approach to meet
335 the 80% requirement (i.e., to expand DSL capabilities to every exchange) is the
336 least costly approach.⁹

337 The assumption [deploying DSL to every exchange or wire-center]
338 was made at the time the calculations were performed that the
339 requirement was intended to provide coverage to 80% of the
340 customers in every CO. This is not necessarily the least costly
341 approach. [Illustration added]

342
343 Clearly, the company has no good justifications for its assumed DSL deployment
344 methodology. As a direct result of Verizon's assumptions regarding DSL
345 deployment, the cost of meeting the 80% requirement is overstated. For this
346 reason alone, Verizon's cost estimate of **\$xx** million should not be used to assess
347 whether the company should be granted a Section 13-517 waiver

348

⁹ Company response to Staff Data Request QL-25.

349 **Q. Has Staff provided a superior estimate of these costs?**

350

351 A. Yes. Staff witness Mark Hansen addresses these issues.

352

353

354 **V. Verizon’s Advanced Service Offering**

355

356 **V.1 Definitions of ‘Offering’ and ‘Providing’**

357

358 **Q. Does Section 13-517 contain an explicit definition of ‘offering’ or ‘providing’**
359 **advanced services to customers?**

360

361 A No, the PUA does not define the terms “offer” or “provide”. Neither does it

362 outline when or how advanced services should be deemed offered or provided to

363 “customers” under Section 13-517.

364

365 **Q. How do you recommend that the Commission interpret and apply the**
366 **requirement to “offer” advanced telecommunications services to customers?**

367

368 A. A service offering or “offering” a service is associated with a market to which the

369 service is being marketed, and with rates at which the service is offered. Before

370 offering a service, a carrier must identify the *market* in which to offer and market

371 the service, and it will also have to determine the *rates* at which to offer the

372 service. Most importantly, *there has to be a reasonable expectation that a*

373 *sufficient number of end-users in the market would purchase this service at these*

374 *rates to make the service offering profitable*; otherwise the carrier would not offer

375 this service in the market.

376 The rates for a service, like prices of any other products, are generally,
377 determined based on the demand and supply in the market for the service.¹⁰ For
378 example, if a service is offered to big business end-users, rates for the service
379 would be set based on the demand and supply characteristics in the big business
380 end-users market. Marketing efforts would also be directed at these big business
381 end-users. In this example, the carrier would be deemed to “offer” the service to
382 big business end-users (at business market rates). However, the carrier in this
383 example should not be considered to “offer” the service to residential or small
384 business end-users (at rates set for big business end-users), as the rates for the
385 service are neither based on demand and supply in the residential or small
386 business end-users market nor set to attract these residential or small business
387 end-users. In addition, there is no reasonable expectation that any residential or
388 small business end-users would purchase this service (at the offered rates).

389 In short, ‘offering’ a service is market and rates specific. The rates are set
390 based on the demand and supply characteristics in the market, and *there has to be*
391 *a reasonable expectation that a sufficient number of end-users in the market*
392 *would purchase this service at these rates.*

393
394 **Q. How do you recommend that the Commission interpret the requirement to**
395 **“provide” advanced services to customers?**

396
397 A. ‘Providing’ differs from ‘offering’. ‘Providing’ a service to an end-user is
398 equivalent to provisioning a service to an end-user. When a carrier offers a

¹⁰ The supply function of a service captures the characteristics of costs of provisioning the service in the market; and the demand function characterizes the potential buyer’s willingness to pay for the service.

399 service to an end-user and when the end-user accepts the service offering, then the
400 carrier provides (or provisions) the service.¹¹ In other words, while “offering” a
401 service refers to an offering of a sale contract, “providing” a service refers to the
402 execution of the *offered* sale contract, which only occurs after acceptance of the
403 *offered* sale contract.¹² Thus, while Verizon offers Plain Old Telephone Service
404 (POTS) to end-users in its serving territory, it is only considered as providing
405 POTS service to an end-user when the POTS line connecting the end-user to the
406 public switched telephone network (PSTN) has dial tone, which will occur some
407 time after the end-user accepts Verizon’s POTS service offering. Similarly, if
408 Verizon is offering advanced services to 100% of its business customers, this
409 does not mean that Verizon is providing advanced services to 100% of its
410 business customers or that 100% of its business customers have signed on to
411 Verizon’s advanced services offerings.

412
413 **Q. Should the Commission treat residential/small business end-users and big**
414 **business end-users separately for purpose of determining what set of**
415 **advanced services Verizon offers to its end-users (and thus “customers”)?**
416
417 A. Yes, the Commission should look at residential/small business end-users and big
418 business end-users separately in identifying what advanced services Verizon

¹¹ It must be noted that there may be a time interval between accepting a service offering and the actual providing of the service due to time required for ‘service setup’. For example, after accepting a POTS service offering, it may take a week before the end-user’s POTS line has dial tone – an indicator of service being provided.

¹² “Sale contract” in this context is a loosely defined term and include verbal as well as written contracts.

419 offers to its end-users and “customers” (“customers” will be defined in Section
420 VI).¹³

421

422 **Q. Please explain.**

423

424 A. Residential and small business end-users have very different demand and
425 affordability characteristics compared to big business end-users. Big business
426 end-users generally have significantly greater willingness and ability to pay than
427 residential and small business end-users. Carriers generally offer big business
428 end-users voice telephone services with more capacity, features and capability
429 and at higher rates than residential and small business end-users. Similarly, the
430 advanced services that Verizon offers to residential/small business end-users are
431 different from the set of advanced services that Verizon offers to its big business
432 end-users. Therefore, it is important to treat residential/small business end-users
433 and big business end-users separately in identifying the sets of advanced services
434 that Verizon offers to each set of end-users.

435

436 **Q. Has Verizon provided a recommendation in its direct testimony as to when it**
437 **should be deemed to “offer” advanced services?**

438

439 A. No. However, Verizon provides a definition of the phrase “offering advanced
440 services” in its response to Staff Data Request QL-1.¹⁴

441

442

443

444

‘Offering advanced services’ means that Verizon has tariff provisions that permit interested customers to obtain the specific services based on published terms and conditions.

¹⁴ Company response to Staff Data Request QL-1(i) & (ii).

445 [Offering] means that VZ [Verizon] has established *processes and*
446 *rates* that allow it, at a customer's request, to make the service
447 available. [Emphasis and illustration added]
448

449 Thus, the company explicitly acknowledges that a service offering is associated
450 with the *rates* at which the service is being offered or made available. As
451 discussed above, fundamental economic principles indicate that the (tariffed) rates
452 are determined based on demand and supply in *a market* where the advanced
453 services are being *offered*. It thus follows that Verizon (at least implicitly)
454 acknowledges that "offering" an advanced service is associated with a *market*
455 where the service is being marketed and *rates* at which the service is being
456 *offered*. Moreover, *the company must have a reasonable expectation that a*
457 *sufficient number of end-users in the market would purchase the offered services*
458 *(at the offered rates) to make the offering viable*. Otherwise the company, aiming
459 to maximize its profits, would not "offer" this service. Therefore, although Staff
460 and Verizon have different definitions of the term "offer", Verizon's definition is
461 (at least implicitly) consistent with Staff proposed definition by acknowledging
462 the relevance of rates.

463
464 **Q. Do you have any other comment on Verizon's apparent position concerning**
465 **what it means to "offer" an advanced service to customers?**

466
467 A. Yes. *Verizon appears to claim that services such as ATM, FR and HCD should*
468 *be considered as "offered" to small business and residential customers simply*
469 *because they are tariffed and there are no specific restrictions excluding these*
470 *customers from purchasing these services*. Verizon's apparent position is

471 unreasonable on its face, since if it is accepted, there would have been no need for
472 the General Assembly to adopt Section 13-517 and it would serve little or no
473 purpose. Under Verizon's position, all (or virtually all) ILECs could claim 100%
474 coverage and satisfaction of Section 13-517 requirements. This would be true as
475 of the date of the enactment of the Act, and thus the waiver provisions of Section
476 13-517(b) and indeed all of section 13-517 would be unnecessary and serve no
477 purpose. This clearly is an unreasonable outcome and one the Commission
478 should reject.

479

480 **V.2 Advanced Services Offered To Big Business End-Users**

481

482 **Q. What advanced services does Verizon claim to offer to big business end-**
483 **users?**

484

485 A. It appears that Verizon claims to offer FR, HCD, ATM and DSL advanced
486 services to its big business end-users.¹⁵

487

488 **Q. Please describe each of these services.**

489

490 A. A description of each of these services is provided in Attachment 1.0 to this
491 testimony.

492

493 **Q. Do you agree that Verizon offers or provides FR services to its big business**
494 **end-users?**

495

¹⁵ Note that the company does not provide information on big business end-users or 'customers' separately. The company, however, did claim to offer FR, ATM, HCD and DSL to residential and business 'customers' (including small and big businesses). As big business 'customers' are a subset of *residential and business* 'customers', it naturally follows that the company claims to offer FR, ATM, HCD and DSL to its big business 'customers'. See, Exhibit TDB-1 and pages 5-6 of Mr. Trimble's testimony.

496 A. Yes. Examination of Verizon's tariff reveals that Verizon offers and markets
497 Frame Relay *advanced services* (as defined in Section 13-517) with speeds of 256
498 kbps, 384 kbps, and 1.544 mbps respectively.¹⁶ FR services are chiefly marketed
499 as alternatives to dedicated-private lines, which are marketed to big business end-
500 users. Thus, it is reasonable to conclude that Verizon offers and markets its FR
501 services to its big business end-users.

502
503 **Q. Do you agree that Verizon offers ATM services to its big business end-users?**

504
505 A. Yes. Based on Verizon's tariff, Verizon offers and markets ATM over DS1, DS3,
506 OC3c, and OC12c *access channels*.¹⁷ ATM is more expensive than FR and it can
507 handle a wider range of classes of services and at higher operating speed than FR.
508 Since FR is marketed to big business end-users, it seems clear that Verizon offers
509 and markets ATM services to its big business end-users as well.

510
511 **Q. Do you agree that Verizon offers HCD services to its big business end-users?**

512
513 A, Yes. Examination of Verizon tariff reveals that Verizon offers eight HCD
514 services.¹⁸ As noted in Attachment 1.0 of this testimony, HCD services are a
515 *special type* of Special Access services and provide high-capacity-digital point-to-
516 point dedicated transmission. HCD as well as Special Access services are

¹⁶ See, Verizon's General Exchange Tariff, Tariff, Ill. C.C. No. 11, Section 18, Original Sheet No. 11-13.

¹⁷ Verizon General Exchange Tariff, Ill C.C. No. 11, Section 17, Original Sheet No. 12-13.

¹⁸ The eight HCD services are: (1) HCD Digital DS1 (1.544 mbps), (2) HCD FiberConnect (6.312 mbps), (3) HCD FT1 (4 x 56 kbps, 4 x 64 kbps, 6 x 56 kbps, 6 x 64 kbps), (4) HCD DS3-three system (44.736 mbps), (5) HCD DS3-unlimited system (44.736 mbps), (6) HCD DS3-individual system (44.736 mbps), (7) CD DS3-group system (44.736 mbps), and (8) HCD DS3-special transport (44.736 mbps). See Verizon General Exchange Tariff, Ill C.C. No. 10, Section 5, Thirteenth Revised Sheet No. 78, 78.1, 79-83.

517 marketed to big business end-users. Thus, it is reasonable to conclude that

518 Verizon offers HCD services to its big business end-users.

519

520 **Q. Should Verizon be considered to offer DSL services to big business end-users**
521 **for purpose of Section 13-517?**

522

523 A. Yes. *For purpose of Section 13-517*, DSL services may be deemed as offered to

524 big business end-users. It must be noted that the primary users of DSL services at

525 present are residential and small business end-users, not big business end-users.

526

527 **Q. In summary, is it appropriate to include FR, ATM, HCD and DSL services in**
528 **the set of advanced services that Verizon offers to its big business end-users**
529 **for purpose of Section 13-517?**

530

531 A. Yes. FR, HCD, ATM and DSL services all qualify as Section 13-517 advanced

532 services and are all offered to big business end-users by Verizon. Therefore, for

533 purposes of Section 13-517 of the PUA, it is appropriate to include all four types

534 of services (FR, ATM, HCD and DSL) when assessing the percentage of its big

535 business ‘customers’ to whom Verizon offers Section 13-517 advanced services.

536

537

538 **V.3 Advanced Services Offered To Residential/Small Business End-**
539 **Users**

540

541 **Q. What advanced services does Verizon claim to offer to residential/small**
542 **business customers?**

543

544 A. Verizon claims that it offers its residential/small business end-users all the

545 advanced services that it offers to its big business end-users.¹⁹ That is, it claims

¹⁹ Note that the company does not provide information on *residential and small business* end-users or ‘customers’ separately. The company, however, did claim to offer FR, ATM, HCD and DSL to *residential and business* ‘customers’ (including small and big businesses). As *residential and small business*

546 to offer ATM, FR, HCD and DSL advanced services to its residential/small
547 business end-users.

548

549 **Q. In your opinion, does Verizon offer FR services to its residential/small**
550 **business end-users for purpose of Section 13-517?**

551

552 A. No. FR is primarily intended for LAN-to-LAN internetworking applications,²⁰

553

and FR networks are chiefly marketed as alternatives to *dedicated-private lines*,

554

which are big business end user services. FR clearly is not intended for

555

residential/small business end-users. It is intended for the big business market,

556

and the rates set by Verizon are based on *demand* and *supply characteristics* in

557

the big business market for FR services. The high rates for FR services in

558

Verizon's tariff are clearly not set to attract residential/small business end-users,

559

and neither are they attractive to residential/small business end-users.²¹ For

560

example, the lowest speed FR (port and access) services²² meeting the speed

561

requirements of Section 13-517(c) would cost \$395 in nonrecurring charge and

562

\$285 in monthly recurring charges; and DS1 FR (port and access) services would

563

cost \$595 in nonrecurring charge and \$530 in monthly recurring charge. Clearly,

564

there can be no reasonable expectation that any residential or small business end-

'customers' are a subset of *residential and business* 'customers', it naturally follows that the company claims to offer FR, ATM, HCD and DSL to its *residential and small business* 'customers'. See, Exhibit TDB-1 and pages 5-6 of Mr. Trimble's direct testimony.

²⁰ LAN refers to Local Area Network.

²¹ For tariffed rates for FR advanced services, see Verizon General Exchange Tariff, Ill. C.C. No.11 Section 18, Original Sheet No.12-13; and Ill.C.C. No. 10, Section 16, Third Revised Sheet No. 2, Original Sheet No. 17-22.

²² A Section 13-517 FR service is a FR service with speed at least 200 kbps in at least one direction. The lowest speed of Section 13-517 FR services (offered by Verizon) is 256 kbps. See Verizon General

565 users would purchase FR services at these offered (tariffed) rates. Therefore,
566 contrary to its assertion, Verizon does not “offer” FR advanced services to its
567 residential/small business end-users as the term is used in Section 13-517 of the
568 PUA.

569

570 **Q. Do you agree that Verizon offers ATM services to its residential/small**
571 **business end-users?**

572

573 A. No. ATM is very high-speed transmission technology, and is capable of
574 supporting a wider range of classes of services and at greater operating speeds
575 than FR. It is more expensive than FR. As discussed above, FR is chiefly
576 marketed to big business end-users, not to residential or small business end-users.
577 Thus, it is clear that ATM services are also marketed to big business end-users,
578 not to its residential or small business end-users. Verizon’s tariff lends further
579 supports for this conclusion.²³ For example, the lowest speed ATM services
580 meeting the speed requirements of Section 13-517(c) would cost \$650 in non-
581 recurring charge and \$650 in monthly recurring charge for the *access channel*
582 (*‘port and access’*) *in addition* to monthly recurring charge for Sustained-Cell-
583 Rate (SCR), which ranges from \$63 to \$1,305 for CBR (Constant-Bits-Rate).²⁴
584 Clearly, these rates for ATM services are not set to attract residential or small
585 business end-users, and there can be no reasonable expectation that any

Exchange Tariff, Ill. C.C. No.11 Section 18, Original Sheet No.12-13; and Ill.C.C. No. 10, Section 16, Third Revised Sheet No. 2, Original Sheet No. 17-22.

²³ See, Verizon General Exchange Tariff, Ill.C.C. No.11, Section 17, Original Sheet No.12-14.

²⁴ There are three Sustained-Cell-Rates (SCR): CBR, VBR-rt, and VBR-nrt. The rates for VBR-rt and BVR-nrt range from \$52 to \$1,087.50 and from \$42 to \$870.00, respectively. See, Verizon General Exchange Tariff, Ill.C.C. No.11, Section 17, Original Sheet No.13-14.

586 residential or small business end-users would purchase ATM services at these
587 *offered* (tariffed) rates. Therefore, contrary to its assertion, Verizon does not offer
588 ATM services to its residential/small business end-users as the term is used in
589 Section 13-517 of the PUA.

590

591 **Q. In your opinion, does Verizon offer HCD services to its residential/small**
592 **business end-users?**

593

594 A. No. HCD services are a special type of Special Access services and provide
595 point-to-point high-capacity-digital dedicated transmission path. As is well
596 known, Special Access services are marketed to big businesses. It is thus
597 reasonable to conclude that Verizon markets its HCD services to its big business
598 end users, not to residential end users or small business end users. This
599 conclusion is amply supported by Verizon's tariffed rates for these HCD
600 advanced services.²⁵ Verizon did not set these rates for HCD services to attract
601 residential/small business users, and there is no reasonable expectation that any
602 residential or small business end-users would purchase Verizon's HCD services at
603 the offered (tariffed) rates. Therefore, contrary to its assertion, Verizon does not
604 offer HCD services to its residential/small business end-users as the term is used
605 in Section 13-517 of the PUA.

606

607 **Q. Has Verizon provided any evidence to show that it actually directs its**
608 **marketing efforts (advertising, for example) for FR, ATM and HCD services**
609 **towards residential/small business end-users?**

610

²⁵ See Verizon General Exchange Tariff, Ill. C.C. No. 10, Section 5, Thirteenth Revised Sheet No. 78, 78.1, 79-84.

611 A. No. Verizon acknowledges that it would cost “\$500 per month for an average
612 DS-1 [FR, HCD, or ATM] transport service, and more for some of the other [FR,
613 HCD, or ATM] advanced services”.²⁶ The company does NOT claim that these
614 prices (\$500 per monthly or higher) are attractive to residential/small business or
615 that the company’s (tariffed) prices for its FR, ATM or HCD advanced services
616 are based on demand and supply characteristics in the residential/small business
617 market for these services. Neither does the company provide any evidence that it
618 actually directs its marketing efforts (advertising, for example) towards the
619 residential/small business end-users. Therefore, the company does not present
620 concrete evidence that it offers or markets FR, ATM, or HCD advanced services
621 to its residential/small business end-users.

622
623 **Q. Do you have any other evidence to support your conclusion that Verizon’s**
624 **rates for FR, HCD and ATM services are not set to attract (and are not**
625 **attractive to) residential end-users?**

626
627 A. Yes. Based on the company’s responses to Staff Data Request, Verizon currently
628 does not *provide* FR, HCD or ATM services to *any* of its residential end-users (at
629 the tariffed rates).²⁷ That is, NONE of Verizon’s residential end-users currently
630 purchases (or subscribes to) its FR, HCD or ATM services (at the offered or
631 tariffed rates). Clearly this indicates that the tariffed rates for these services are
632 not attractive to any of the company’s residential end-users, and it confirms the
633 expectation that no residential end-users would purchase (or subscribe to)
634 Verizon’s FR, ATM or HCD services (at the offered or tariffed rates).

²⁶ P 6: 130-131 of Mr. Trimble’s direct testimony (confidential).

635

636 **Q. Do you have any other evidence to support your conclusion that Verizon's**
637 **(tariffed) rates for FR, HCD and ATM services are not set to attract (and are**
638 **not attractive to) small business end users?**

639

640 A. Yes. First, as noted above, small business end users share similar characteristics
641 with residential end-users. As NONE of the company's residential end-users
642 purchases Verizon's FR, HCD, or ATM services, it is a reasonable presumption
643 that none or few of the company's small business end users would purchase (or
644 subscribe to) Verizon's FR, HCD or ATM services. Verizon has provided no
645 evidence that would rebut this reasonable presumption.

646

647 Second, Verizon's responses to a Staff Data Request lend further support
648 for the above presumption.²⁸ Verizon has a total of **xx** Business Billing
649 Accounts (*small and big business* combined).²⁹ But it currently only *provides* **xx**
650 FR ports with speeds ≥ 45 mbps and **xx** FR ports with speed ≤ 1.5 mbps;³⁰ **xx**
651 ATM ports with speed ≥ 45 mbps and **xx** ATM ports with speed $\leq T1$ 1.5 mbps;³¹
and has **xx** HCD 'customers' with speed > 1.5 mbps and **xx** HCD 'customers'

²⁷ Company response to Staff Data Request QL-2(i), QL-3(i) and QL-4(i).

²⁸ The company does not provide information on its *small business 'customers' or end-users* separately. The information provided by the company on its current FR, ATM and HCD services provisioning includes combined information on businesses (i.e., small and big businesses combined).

²⁹ Company response to Staff Data Request QL-3. Note that business billing accounts include *big as well as small business* billing accounts. And billing accounts are different from access lines, and one billing account may have several access lines. However, it is unclear how billing accounts are related to end-users, i.e., is one end-user associated with one billing account and vice versa?

³⁰ These FR ports may be 'port only' or 'port and access' services. As discussed in section VI, 'port only' FR services do not qualify as (advanced) services and thus, Verizon currently may provision *fewer than* **xx** FR lines with speed $\geq T3$ and *fewer than* **xx** FR lines with speed $\leq T1$. See, Company response to Staff Data Request QL-2 and QL-26.

³¹ These ATM ports may be 'port only' or 'port and access' ATM services. Thus, Verizon currently may provision *fewer than* **xx** ATM 'port and access' with speed $\geq T3$ and **xx** ATM ports or lines with speed = T1. See, Company response to Staff Data Request QL-4 and QL-26.

652 with speed ≤ 1.5 mbps.³² That is, Verizon's current service provisioning includes
653 (*at most*) approximately *two* FR lines with speed no less than T3 and *twenty* FR
654 lines with speed no greater than T1; *five* ATM lines with speed no less than T3
655 and no ATM lines with speed less than T3; and one HCD 'customer' with speed
656 greater than DS1 and ten HCD 'customers' with speed no greater than DS1 *per*
657 *1,000 business billing accounts* (including big and small businesses). Unless
658 Verizon can demonstrate otherwise, the Commission must conclude that none of
659 these (FR, HCD or ATM) services *are provided to small* businesses.

660
661 **Q. To sum up, is it correct to conclude that the tariffed rates for FR, ATM, or**
662 **HCD services are not set to attract (and are not attractive to) residential or**
663 **small business end-users?**

664
665 A. Yes, it is correct to conclude that Verizon's tariffed rates for FR, ATM or HCD
666 are not set to attract and are not attractive to residential or small business end-
667 users.

668
669 **Q. Do you agree that Verizon offers DSL services to some of its residential and**
670 **small business end-users?**

671
672 A. Yes. The company offers DSL services to some of its residential/small business
673 end-users in **xx** of its serving exchanges.³³

674

³² See, Company response to Staff Data Request QL-3. It is unclear what the company means by 'customers' at various places in response to Staff Data Request QL-3. The total number of business 'customers' (sum of the business 'customers' in each Central Office Location) is virtually the total number of Business Customer Billing Accounts (**xx**). However, the numbers of 'customers' to whom the company currently provides HCD services — **xx** and **xx** — is likely to be the numbers of HCD lines provisioned, as it would be unlikely that the company would keep its billing accounts according to speeds of transmission.

³³ Exhibit DBT-1 of Mr. Trimble's testimony.

675 **Q. Does Verizon offer DSL services to its (residential/small business) end-users**
676 **on a stand-alone basis or does it offer it to its end-users through Internet**
677 **Service Providers (ISPs) as part of DSL Internet services?**
678

679 **A.** In its response to a Staff Data Request QL-5, Verizon states that it currently sells
680 DSL transport services ‘*primarily* to ISPs who then package DSL with their
681 internet service offerings.’³⁴

682
683 **Q. Verizon lists xx exchanges in which it offers DSL services in Exhibit DBT-1**
684 **of Mr. Trimble’s direct testimony.³⁵ Does this mean that Verizon has signed**
685 **up with at least one ISP for the provision of DSL Internet services in every**
686 **one of those 16 exchanges?**
687

688 **A.** Verizon does not provide this information in its direct testimony. DSL transport
689 services in an exchange would be of no value to the buyers if no ISP is willing to
690 provide DSL Internet access in that exchange, as DSL (transport) services are
691 primarily used in conjunction with internet access. If the company “offers” DSL
692 transport services in an exchange without signing up with any ISP, this is
693 tantamount to not offering DSL transport services at all from the viewpoint of the
694 end-users. Thus the Verizon should clarify for the Commission in its rebuttal
695 testimony whether “offering DSL transport” in an exchange would necessarily
696 mean that the company has signed up with at least one ISP for the provision of
697 DSL Internet services in addition to making its network facilities DSL-capable.

698
699 **Q. In your opinion, are DSL services the only type of advanced services that**
700 **Verizon ‘offers’ to its residential/small business end-users?**
701

³⁴ Company response to Staff Data Request QL-5.

³⁵ See Exhibit TDB-1 of Mr. Trimble’s direct testimony (confidential).

702 A. Yes, at this time DSL services are the only type of services that Verizon actually
703 offers or markets to its residential/small business end-users. It is the only type of
704 advanced service that Verizon makes available to its residential/small business
705 end-users (in some of its serving areas) at rates that can be attractive to and that
706 are intended to attract and be affordable to these end-users.

707 This does not mean, of course, that the Verizon may not offer other types
708 of advanced services to residential and small business end-users to satisfy its
709 Section 13-517 obligations. Obviously, nothing in the PUA prevents the
710 company from offering (or providing) advanced services other than DSL services
711 to its residential/small business end-users.

712

713 **VI. Definition of ‘Customers’ For Purposes Of PUA Section 13-517**

714

715 **Q. Section 13-517 of the PUA mandates that an ILEC must offer advanced**
716 **services to 80% of its *customers*. Does the PUA define “customers”?**

717

718 A. No. The PUA does not provide a definition for “customers” for purposes of
719 Section 13-517, nor does it outline how to count (or calculate) the total number of
720 “customers” and the number of “customers” that are offered or provided Section
721 13-517 advanced services.

722

723 **Q. What definition of “customers” do you propose for purpose of Section 13-**
724 **517 of the PUA?**

725

726 A. I propose an *end-user-based* definition of “customers”. Section 13-217 of the
727 PUA defines an end-user as:

728 [A]ny person, corporation, partnership, firm, municipality,
729 cooperative, organization, governmental agency, building owner,
730 or other entity provided with a telecommunications service for its
731 own consumption and not for resale.³⁶
732

733 For purpose of Section 13-517 of the PUA, “customers” should mean “end-users”
734 (as defined in Section 13-217 of the PUA) that are provided with
735 telecommunications services³⁷ by the ILEC or by another local exchange carrier
736 through the ILEC’s network facilities (i.e., using UNE-P or UNE-loop or through
737 resale). Moreover, an end-user provided with telecommunications services at
738 multiple locations should be considered as a customer at each location for purpose
739 of Section 13-517 of the PUA.

740 This definition of “customers” is very similar to the definition of
741 “customers” adopted by the Commission in the *Initiating Order* in Docket No. 02-
742 0699: Adoption of 83 Ill. Adm. Code 733 Implementing Section 13-517 of the
743 Public Utilities Act.³⁸

744
745 **Q. Please explain why end-users served by CLECs through Verizon’s network**
746 **facilities should be counted as Verizon “customers” for purpose of Section**
747 **13-517 of the PUA.**

748
749 **A.** A carrier (ILEC) is expected to satisfy its Section 13-517 obligations by using or
750 upgrading its existing network facilities. While CLECs may provide
751 telecommunications services to its end-users through Verizon’s network facilities
752 (UNE-P, UNE-L or resale), they may not upgrade these network facilities to make

³⁶ 220 ILEC 5/13-217, Section 13-217 of the Public Utilities Act.

³⁷ Telecommunications services can be either Plain Old Telephone Services (POTS) or advanced services.

753 them advanced services capable.³⁹ Thus, Verizon is the sole party that can decide
754 whether these end-users (served by CLECs through Verizon’s network facilities)
755 are able to obtain advanced services delivered over these network facilities.
756 Furthermore, CLEC end-users served through the Verizon’s network facilities
757 should be treated equally as Verizon’s own end-users for purpose of Section 13-
758 517. Failure to do so could discourage end-users from migrating to CLECs,
759 which would have the effect of discouraging competition. Finally, an ILEC
760 should not be punished for meeting its obligation to make its network and
761 services available to CLECs. If an ILEC makes its facilities capable of providing
762 advanced services and offers those services, it should receive credit for that action
763 in connection with satisfying its obligations under Section 13-517(a). This
764 approach will also provide more certainty to ILECs in terms of assessing their
765 compliance with Section 13-517. That is, the fact that an ILEC may lose one of
766 its customers to a competitive carrier (a factor not directly in the ILEC’s control)
767 should not change the outcome of its compliance with Section 13-517. Therefore,
768 CLECs’ end-users served through Verizon’s network facilities should be treated
769 as Verizon’s end-users and “customers” for purpose of Section 13-517 of the
770 PUA.

771
772 **Q. You mentioned the terms “residential customers”, “small business**
773 **customers” and “big business customers” in your discussion of “offering”**

³⁸ See, Illinois Commerce Commission, On Its Own Motion, Adoption of 83 Ill. Adm. Code 733 Implementing Section 13-517 of the Public Utilities Act, Order Initiating Proceedings and Authorizing First Notice of Proposed Rules, Docket No. 02-0699 (October 29, 2002).

³⁹ Note that ‘own facilities’ in this context (or testimony) refers to facilities actually owned by the CLEC, not leased from Verizon, and it may differ from ‘own facilities’ in other context.

774 **services in section V. How should the Commission distinguish between small**
775 **and big business “customers” (or end-users)?**

776
777 A. To reflect the different demand characteristics and demand patterns, the FCC
778 divides telecommunications markets into a *mass market* consisting of residential
779 and small business end-users with no more than three access lines, and a *larger*
780 *business* market consisting of big business end-users with at least four access
781 lines.⁴⁰

782 For purpose of Section 13-517, a *small business end-user* should be a
783 business end-user with *no more than* three access lines, and a *big business end-*
784 *user* should be a business end-user with *at least* four access lines (with “end-
785 users” as defined in Section 13-217 of the PUA). Accordingly, a residential end-
786 user is a residential customer, and a small business *end-user* is a small business
787 customer. Similarly, a big business end-user is a big business customer. Where
788 services are provided to the same end-user at multiple locations, the residential,
789 small business, and big business end-user should be counted as one residential,
790 small business, or big business customer, as applicable, at each location.⁴¹

791
792 **Q. Does Verizon have readily available information on “customers” as defined**
793 **as above?**

794
795 A. It is unclear from the company’s direct testimony. However, a similar definition
796 of “customers” was adopted in the *Initiating Order* in Docket No. 02-0699:

⁴⁰ See FCC in the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, CC Docket No. 96-98, FCC 99-238 (November 5, 1999) at para. 290-295 & fn. 575.

⁴¹ Even though the numbers of access lines may be fewer than four at some locations, the big business end-user is still considered as a big business customer at each of those locations.

797 Adoption of 83 Ill. Adm. Code 733 Implementing Section 13-517 of the Public
798 Utilities Act.⁴² This means that all ILECs may be expected to provide
799 information based on this definition of “customers” in Section 13-517
800 proceedings.⁴³ Thus, it is reasonable to expect Verizon to be able to provide such
801 information in this proceeding.

802
803 **Q. The above-proposed definition of “customers” has a potential complexity**
804 **resulting from end-users with multiple locations of services. In the event that**
805 **the Commission does not adopt the above-proposed definition, do you have**
806 **an alternative definition of “customers” that could be utilized?**

807
808 **A.** In the event that the Commission decides not to adopt the above-proposed
809 definition of “customers” due to a present unavailability of information on end-
810 users by service location — *i.e.*, if the company does not at present keep track of
811 information of end-users by service locations — Staff recommends that
812 “customers” be identical to “end-users”, regardless of whether multiple locations
813 of services are involved. In other words, an end-user is counted as one customer
814 regardless of whether the end-user is provided with telecommunications services
815 at one single location or at multiple locations.

816
817 **Q. Under this alternative definition of “customers” how should small business**
818 **“customers” be distinguished from big business “customers”?**
819

⁴² See, Illinois Commerce Commission, On Its Own Motion, Adoption of 83 Ill. Adm. Code 733 Implementing Section 13-517 of the Public Utilities Act, Order Initiating Proceedings and Authorizing First Notice of Proposed Rules, Docket No. 02-0699 (October 29, 2002).

⁴³ This is to assume that the definition of ‘customers’ in the Initiating Order for Code Part 733 Rulemaking Proceeding will be adopted in the Final Order of this Rulemaking Proceeding, which is likely to occur as this definition is the product of a series workshops among carriers (including Verizon) and Commission Staff.

820 A. As before, a *small* business end-user is a business end-user with *no more than*
821 three access lines and a *big* business end-user is a business end-user with *at least*
822 four access lines. Similarly, a residential, small business, and big business end-
823 user is a residential, small business, and big business customer, respectively, for
824 purpose of Section 13-517, with no additional allowance made for end-users with
825 *multiple-locations-of-services*.

826
827 **Q. Has Verizon provided its definition of “customers” in its direct testimony?**

828
829 A. No. Verizon does not formally define “customers” in its direct testimony. The
830 company also fails to provide, *in a clear, consistent or meaningful manner*, the
831 total number of *its Section 13-517* “customers” or the numbers of “customers” to
832 whom it offers or provides various types of advanced services. As will be
833 discussed in more detail in section VIII, the company’s *implicit definitions* of
834 “customer” used in the assessments of its offering coverage for different types of
835 advanced services are unclear and inconsistent, and its calculated *coverage*
836 *statistics* for its advanced services offering are deficient.

837

838 **VII. Coverage Statistics For Section 13-517 Advanced Services**

839

840 **VII.1 “Customers” Means End-Users By Service Location**

841 **Q. What standard should be used to calculate the percentage of “customers” to**
842 **whom Verizon offers advanced services?**

843

844 A. I use the definition of “customers” as proposed in section VI. That is, a small
845 business end-user is a business end-user with no more than three access lines

846 while a big business end-user is a business end-user with *at least* four access
847 lines. An end-user is a customer. Wherever multiple locations of services are
848 involved, an end-user is counted as one customer at each service location.

849

850 **Big Business Customers**

851

852 **Q. Are you able to calculate the Verizon's total number of large business**
853 **"customers" and large business "customers" to whom Verizon offers FR,**
854 **ATM, HCD or DSL services, respectively, based on information provided by**
855 **the company so far?**

856

857 A. No. The information provided by the company is insufficient to calculate: (1) the
858 total number of Verizon's Section 13-517 "customers", (2) the total number of
859 Verizon large *business* "customers", or (3) the percentages of Verizon large
860 business "customers" that have been offered FR, HCD, ATM or DSL services.

861

862 First the company did not present (1) the numbers of Verizon "customers"
863 served through its network facilities, (2) the number of "customers" to whom it
864 offers FR, ATM, HCD or DSL advanced services or (3) any other information
865 regarding "customers" using the definitions of "customers" and big business
866 "customers" as stated above.

866

867 Second, the company did not distinguish between large business end-users
868 (or "customers") and residential/small business end-users (or "customers") in its
869 testimony.

869

870 Third, the company's claims of "offering" advanced services are
871 inaccurate. As demonstrated in section VIII, the company appears to have
misclassified services that do not qualify as advanced services certain customer

872 classes as advanced services for all customer classes. For the above three
873 reasons, I am not able to calculate the percentage of big business “customers”
874 (with “customers” as defined above) to whom Verizon offers FR, HCD, ATM,
875 and DSL advanced services, respectively.

876

877 **Q. Are you able to calculate the percentages of big business “customers” to**
878 **whom Verizon currently offers advanced services?**

879

880 A. No. As noted before, FR, ATM, HCD and DSL all qualify as advanced services
881 offered to big business “customers” for purpose of Section 13-517 of the PUA.
882 However, I am not able to calculate the percentage of big business customers to
883 whom Verizon offers advanced services due to lack of information.

884

885 **Residential/Small Business “Customers”**

886

887 **Q. Are you able to calculate the number (and percentage) of *residential* and**
888 ***small* business “customers” to whom Verizon offers DSL services based on**
889 **information provided by the company so far?**

890

891 A. No. As discussed in section V, Verizon does not offer FR, ATM or HCD services
892 to its Section 13-517 residential or small business “customers”. Thus, to calculate
893 the percentage of its residential and small business “customers” to whom Verizon
894 offers advanced services, one needs only to calculate the percentage of residential
895 and small business “customers” to whom the company offers DSL services.
896 However, I am unable to extract the required information from the data and
897 information provided by the company (for similar reasons as cited above for big
898 business customers). Therefore, I am not able to calculate the percentage of

899 Verizon's residential/small business customers to whom Verizon offers advanced
900 services for purpose of Section 13-517.

901

902 **Q. Overall, you have not been able to calculate the percentage of "customers" to**
903 **whom Verizon offers advanced services, is that correct?**

904

905 A. That is correct. I am not able to assess the percentage of customers to whom

906 Verizon offers Section 13-517 advanced services, with the definition of

907 "customers" as stated in this section of my testimony.

908

909 **VII.2 "Customers" Means End-Users – The Alternative Definition**

910

911 **Q. What standard should be used to calculate the percentage of "customers" to**
912 **whom Verizon offers advanced services if the Commission does not accept**
913 **your proposed definition?**

914

915 A. In this section, I use the alternative definition of "customers" as proposed in

916 section VI. That is, an end-user is treated as a single customer, with no

917 distinction made between end users with multiple service locations and end-users

918 with a single service location, with small/large business end-users as defined in

919 section VI.

920

921 **Big Business "Customers"**

922

923 **Q. Are you able to calculate the number (and percentage) of large business**
924 **"customers" to whom Verizon offers FR, ATM, HCD and DSL services,**
925 **respectively?**

926

927 A. For the reasons cited in section VII.1, I am not able to extract required

928 information from the data and information provided by Verizon to calculate the

929 numbers of large business "customers" (i.e., end-users) to whom Verizon offers

930 FR, ATM, HCD or DSL services. Insufficient information has also been provided
931 for the calculation of Verizon’s total number of “customers” and the total number
932 of large business “customers”. These figures, of course, are needed to calculate
933 the percentages of “customers” and percentages of big business “customers” to
934 whom Verizon offers various types of advanced services.

935

936 **Residential/Small Business Customers**

937

938 **Q. Are you able to calculate the number (and percentage) of residential and**
939 **small business “customers” to whom Verizon offers DSL services?**

940

941 A. No. As shown in section V, Verizon does not offer FR, ATM or HCD services to
942 residential and small business “customers” for purpose of Section 13-517 of the
943 PUA. It only offers one type of advanced services to residential and small
944 business “customers” — DSL services. However for the reasons cited in section
945 VII.1 in the case for residential/small business customers, I am unable to calculate
946 the percentage of Verizon’s “customers” who are residential/small business
947 “customers” or the percentage of Verizon’s residential/small business
948 “customers” to whom Verizon offers DSL services.

949

950 **Q. Overall, you have not been able to calculate the percentage of “customers” to**
951 **whom Verizon offers Section 13-517 advanced services (i.e., overall coverage**
952 **statistic), is that correct?**

953

954 A. That is correct. I am not able to assess the percentage of customers to whom
955 Verizon offers Section 13-517 advanced services, with the definition of
956 “customers” as stated in this section.

957

958 **VIII. Verizon's Claims Concerning Its Current Deployment of**
959 **Advanced Services Offerings Are Flawed And Should Be Rejected**
960

961 **Q. Do you have a general comment concerning Verizon's request that the**
962 **Commission rule that Verizon currently satisfies the requirements of Section**
963 **13-517(a)?**

964
965 A. Yes. As mentioned previously in this testimony, Section 13-517 nowhere
966 provides for Commission "certification" of compliance with Section 13-517(a), as
967 requested by Verizon. Staff's briefs will address issues surrounding the propriety
968 of this request. However I provide in this section an analysis of Verizon's claim
969 that it currently provides advanced services to 100% of its customers. I
970 demonstrate how and why this claim is severely flawed. I also point out some of
971 the actions Verizon would need to take to rectify the fundamental flaws in its
972 analysis. I present this analysis to assist Verizon in the event that at some point in
973 the future it is required (in whatever circumstance) to demonstrate compliance
974 with requirements concerning the deployment of advanced services.

975
976 **Q. Does Verizon claim to offer advanced services (as defined in Section 13-517)**
977 **to 100% of its customers?**

978
979 A. Yes. Verizon's witnesses contend that the company offers Section 13-517
980 advanced services to 100% of its "customers":

981 Verizon currently offers several products that satisfy the definition
982 of Advanced Telecommunications Services and are already
983 available to *any Verizon customer* today.⁴⁴ [Emphasis added].

984
985 [I]ntrastate Frame Replay and High Capacity Digital Services are
986 offered in areas that cover 100 percent of Verizon's customers.⁴⁵

⁴⁴ Page 2 (Line 41-42) of Mr. John White direct testimony.

⁴⁵ Page 6 (Line 120-121) of Mr. Trimble's direct (confidential) testimony.

987

988

989 **Q. Please comment on Verizon's claim that its offerings of ATM, FR and HCD**
990 **services are sufficient to demonstrate that it meets the requirement of**
991 **Section 13-517(a).**

992

993 A. The Commission can and should reject such claims for reasons I have already set
994 forth in this testimony. In addition, however, the Commission should reject these
995 claims because acceptance of them would require, from a policy standpoint, an
996 unreasonable and unsupportable interpretation or understanding of Section 13-517
997 of the PUA.

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1009 **Q. While Verizon uses the word "customers" throughout its testimony, has**
1010 **Verizon provided an explicit definition of "customers" for purpose of Section**
1011 **13-517 of the PUA?**

1012

1013 A. No. A major deficiency in Verizon's assessment of its advanced services
1014 offerings is that *it does not provide a definition of "customers"* for purpose of

1015 Section 13-517 of the PUA. Neither does it assess the numbers of “customers” to
1016 whom it offers and provides advanced services, respectively, in a clear,
1017 meaningful and consistent manner.

1018
1019 **Q. While not providing an explicit definition of “customers” for purpose of**
1020 **Section 13-517, has the company used an *implicit* definition consistently**
1021 **throughout its testimony? In other words, are the company’s assessments of**
1022 **its coverage statistics for various types of advanced services implicitly based**
1023 **on a well-founded standard?**

1024
1025 A. No. The company has used various *implicit* definitions (or more precisely various
1026 proxies or surrogates) for “customers” throughout its testimony and its responses
1027 to Staff Data Requests. The company’s proxies or surrogates vary throughout its
1028 testimony and responses to Staff Data Request.

1029
1030 **Q. Please provide examples of the proxies (or surrogates) for “customers” used**
1031 **by Verizon in its testimony.**

1032
1033 A. On page 5-6 and Table 1 of Mr. Trimble’s testimony, (switched) access lines are
1034 used as a proxy (or surrogate) for “customers” or “end-user customers”.

1035 The company also uses a proxy that is based on *a subset of access lines* for
1036 its “customers”. Specifically, the total number of “customers”, **xx**, on page
1037 16 (Line 336) of Mr. Trimble’s direct testimony is calculated based on a subset of
1038 access lines,⁴⁶ though it is unknown what proxy was used to produce the number
1039 of **xx** (33% of **xx**) on page 17 (Line 338) of Mr. Trimble’s testimony.

1040 In Table 1, Mr. Trimble *appears to use* households as a proxy for
1041 “customers”. Specifically, in calculating the coverage statistic for its DSL service

⁴⁶ Company response to Staff Data Request QL-19.

1042 offering, Mr. Trimble divides its total DSL offerings by the numbers of
1043 households. Mr. Trimble, thus, uses households as a proxy for “customers”. The
1044 flaws in this approach will be discussed in more detail later in this section.

1045 The company further uses billing accounts as a proxy for “customers”.⁴⁷
1046 In its response to Staff Data Request QL-3, the company provides the numbers of
1047 its business and residential “customers” for each of its **xx** Central Office
1048 Locations, respectively. Adding the numbers of business “customers” in all **xx**
1049 Central Office Locations gives a total of **xx** “customers”. However, this
1050 figure is also the total number of business billing accounts. Similarly, the total
1051 number of residential “customers” (adding up all residential “customers” in the **xx**
1052 Central Office Locations) coincides with the total number of residential
1053 billing accounts, which is **xx**. That is, the company uses billing accounts as
1054 proxy for its “customers” when it counts the *sets of its residential and business*
1055 *“customers”*.

1056 Finally, when counting the *subset of its business “customers” who have*
1057 *been provided HCD services* on the same pages (response to Staff Data Request
1058 QL-3), the company appears to use yet another proxy (other than billing
1059 accounts).⁴⁸ Thus, I conclude that the Verizon, in its response to Staff Data
1060 Request QL-3, uses billing accounts as proxy for “customers” when counting the

⁴⁷ Company response to Staff Data Request QL-3.

⁴⁸ As mentioned earlier, it is unlikely that the company was using billing accounts as a proxy in counting the *subset* of its business ‘customers’ who have been provided HCD services of various speeds (e.g., > DS1 and ≤ DS1) — the proxy it used in counting the set of business ‘customers’ it has, as it is unlikely that the company would keep billing accounts for services by transmission speeds.

1061 *set* of its business “customers”, while it uses a different proxy when counting the
1062 *subsets* of its business “customers” who have been provided HCD services.

1063 These examples demonstrate that the company not only did not provide an
1064 explicit definition of “customers”, but also it did not adopt or use a proxy for the
1065 term “customers” in a consistent and clear manner.

1066
1067 **Q. In Exhibit DBT-1, Mr. Trimble presents the numbers of FR, ATM, and DS1**
1068 **lines in each of Verizon’s 414 exchanges.⁴⁹ Please comment.**

1069
1070 A. Yes. In exchanges where the Verizon claims to “offer” a type of advanced
1071 services (FR, ATM, or DS1), it appears to claim that it “offers” that type of
1072 services to 100% of its “access lines” (proxy for “customers”). For example, in
1073 the Bloomington exchange⁵⁰, in which Verizon has a total (*i.e.*, residential, small
1074 and big business combined) of **xx** access lines and in which the company also
1075 claims to “offer” ATM, FR and DS1 services, it lists **xx** ATM lines, **xx**
1076 FR lines and **xx** DS1 lines.⁵¹ In the Elmwood exchange, where Verizon has a
1077 total of **xx** access lines and where it also claims to offer FR and DS1 services
1078 (but not ATM), it lists **xx** FR lines and **xx** DS1 lines.

⁴⁹ Comparing Exhibit DBT-1 and Mr. Trimble’s direct testimony (in particular, Table 1) seems to indicate that the ‘DS1’ services in Exhibit DBT-1 should have been High Capacity Digital (HCD) services, as the Company discussed and presented HCD service offering in Table 1 and Mr. Trimble’s direct testimony (as it did with FR, ATM and DSL services) and as FR, ATM and DSL all appear in DBT-1. If it is not the case, then the company should need to explain the source of the information on HCD services referred to in Mr. Trimble’s testimony, in particular in Table 1 of Mr. Trimble’s direct testimony. Furthermore, while the company lists 414 exchanges in Exhibit DBT-1, it references 413 exchanges in its testimony (e.g., p10: L209 of Mr. Trimble’s testimony). The company should also clarify whether it has 413 or 414 exchanges.

⁵⁰ Verizon presents one Bloomington exchange in Exhibit DBT-1 (CLLI = BLTNILXD). But it presents three Bloomington exchanges in DBT-2: Bloomington Main (BLTNILXD), Bloomington Normal (BLTNILXN), and Bloomington East (BLTNILXT). The company may have mistakenly and inappropriately combined the three exchanges and presented them as one exchange in DBT-1 (with lines combined). The company should provide a clarification on this.

⁵¹ See Exhibit DBT-1 of Mr. Trimble’s direct testimony.

1079

1080 **Q. Do the numbers of access lines presented in Exhibit DBT-1 include access**
1081 **lines served by CLECs through Verizon’s network facilities?**

1082

1083 A. No. It appears (by comparing Exhibit DBT-1 with the company’s response to the

1084

1085

1086

Commission’s Competition Data Request) that the access line counts for each
exchange in Exhibit DBT-1 do not include access lines served by CLECs through
Verizon network facilities. As explained in section VI, this is inappropriate.

1087

1088 **Q. Is it appropriate for the company to assess its advanced services offerings in**
1089 **terms of “access lines” (or to use access lines as a proxy for “customers”)?**

1090

1091 A. No. It is not appropriate for the company to assess the numbers of “customers”

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1101

offered advanced services in terms of “access lines”, or to tie the offering of
advanced services to access lines. First, it is the end-user customer, not access
lines per se, that is the explicit focus of Section 13-517. Second, use of access
lines runs the risk of being *unable* to identify the “customers” to whom Verizon
offers an advanced service. Consider, for example, an end-user who has five
(switched) access lines, and is also *provided* a FR service (line) of speed 45 mbps
(DS3). The end-user in the example is offered (and provided) advanced services
for purpose of Section 13-517. However, using “access lines” (as a surrogate for
“customers”) renders it impossible to identify which of the five “customers” (i.e.,
access lines) are offered advanced services.

1102

1103

1104

Third, there is no fixed and definite relationship between the number of
access lines and the number of advanced service lines *offered*. Verizon in fact
argues that, if the company offers ATM services to an end-user who has *five*

1105 (switched) access lines, then the company offers this end-user five ATM lines.
1106 Similarly, if the company offers ATM advanced services in one exchange, which
1107 has (for example) 10,000 access lines (surrogate for “customers”), the company
1108 treats that as offering 10,000 ATM lines in that exchange. This defies logic.
1109 There is no reason the company can only offer the end-users exactly the same
1110 number of ATM (or FR, DS1) lines as the number of (switched) access lines that
1111 are currently subscribed by these end-user(s). Therefore, it is highly problematic
1112 to use “access lines” as surrogate (or proxy) for “customers”.

1113
1114 **Q. In Exhibit DBT-1, Verizon claims to offer the same number of FR (or ATM)**
1115 **lines as the total number of access lines in an exchange where it offers FR (or**
1116 **ATM) services. Please comment.**

1117
1118 A. Yes. By doing so, Verizon substantially overstates its coverage statistics for FR
1119 (ATM) services in exchanges where it offers FR (ATM) services and thus
1120 overstates the overall coverage figures for its FR (ATM) services.

1121 First, as demonstrated in section V, the company does not “offer” FR or
1122 ATM (or HCD) services to its residential or small business customers. By
1123 claiming that it offers FR (ATM) services to 100% of its “customers” (using
1124 access lines as the proxy) in exchanges where it offers FR (ATM) services, the
1125 company incorrectly claims to offer these services to customers to whom it DOES
1126 NOT offer any of these services — *i.e.*, residential and small business customers.

1127 Second, it appears that Verizon has misclassified as FR and ATM
1128 advanced services specific offerings that do not qualify as advanced services

1129 under Section 13-517. In its response to Staff Data Request QL-11, Verizon
1130 states:

1131 Verizon offers “port only” service to *any* customer willing to
1132 purchase the service. Bundled, *i.e.*, “*port and access*”, service is
1133 offered *where conditions and facilities exist*. Therefore, *a*
1134 *customer* who may not be able to purchase bundled service (e.g.,
1135 their location is beyond a typical port and access service area) may
1136 purchase port only and separately *provide* the necessary transport
1137 into the Verizon Frame Relay switch. [Emphasis added]
1138

1139 Clearly, Verizon does not offer “port and access” FR services to 100% of its (big
1140 business) “customers”, even though it may offer “port only” FR service to 100%
1141 of its (big business) “customers”.⁵² However, “*port only*” cannot be classified as
1142 an advanced service for purpose of Section 13-517, as it *by itself* does not deliver
1143 information *to or from* the end-user at any speed. “Port and access” FR services,
1144 in contrast, qualify as advanced services for purpose of Section 13-517.
1145 Therefore, the company has overstated its FR service offering in each of its xx
1146 exchanges. It does not offer FR services to 100% of its “customers” in any of
1147 those xx exchanges.

1148 The *above-quoted* Verizon statement is in direct response to questions
1149 regarding FR (and HCD) services. However, information provided by the
1150 company in Staff Data Request QL-4 and in its tariff indicates that this (quoted)
1151 statement similarly applies to ATM services.⁵³ That is, the company merely
1152 offers “port only” ATM services to 100% of its (big business) “customers” in xx

⁵² See DBT-1 of Trimble’s direct testimony (confidential).

⁵³ The Company should clarify whether it offers ‘port only’ ATM to any customers and ‘port and access’ ATM services to some customers in those xx exchanges in its rebuttal testimony.

1153 of its xx serving exchanges. It offers “port and access” ATM services to its (big
1154 business) “customers” only where “conditions and facilities exist.” As “port
1155 only” ATM services alone do not deliver (data) information *to* or *from* the end-
1156 user, they do not qualify as advanced services for purpose of Section 13-517.
1157 Therefore, the Commission must conclude that company overstates its ATM
1158 services offering in those xx exchanges, and it does not offer ATM services to
1159 100% of its “customers” (using access lines as proxy) in those xx exchanges.

1160 In summary, in addition to inappropriate use of access lines as the proxy
1161 for “customers”, Verizon also substantially overstates its coverage statistics for its
1162 FR and ATM services. The company should provide additional information in
1163 rebuttal testimony regarding its FR (“port and access”) and ATM (“port and
1164 access”) services offered.

1165
1166 **Q. Does the above criticisms regarding FR and ATM services apply to HCD**
1167 **services?**

1168
1169 A. It is unclear. The above-quoted Verizon statement (i.e., response to Staff Data
1170 Request QL-26) is in direct response to questions regarding HCD (and FR)
1171 services, and thus should apply to HCD services. Verizon’s tariff (Ill. C.C.
1172 No.10, Section 5, Sheet No. 78-84), however, does not list HCD as “port only” or
1173 “port and access”. The company should provide clarification in rebuttal
1174 testimony regarding the apparent contradiction between its tariff and its response
1175 to Staff Data Request QL-26.

1176

1177 **Q. Do you have other comments regarding the information provided by the**
1178 **company on HCD services?**

1179
1180 A. Yes. The company may have mislabeled some items in Exhibit DBT-1. It
1181 appears that the reference to “DS1” should have been “HCD” (High Capacity
1182 Digital). The company presents coverage statistics for HCD (and FR, ATM,
1183 DSL) services but presents no coverage statistic for its *DSI* services in Table 1 of
1184 Mr. Trimble’s testimony. However, in Exhibit DBT-1, the company presents data
1185 on DS1 (and FR, ATM, DSL) service offerings, but no data on HCD services.
1186 This suggests mislabeling of “DS1”.

1187 The company should in its rebuttal testimony to clarify whether it has
1188 mislabeled “DS1” in Exhibit DBT-1. If not, then the company should explain the
1189 apparently inconsistent way of presenting evidence and should provide the
1190 sources of information and supporting documents for its HCD service offering
1191 presented in Table 1 of Mr. Trimble’s testimony.

1192
1193 **Q. Do you have other comments or criticism regarding Verizon’s calculations of**
1194 **the numbers of “customers”?**

1195
1196 A. Yes. The company appears to apply different standards to assessing the number
1197 of customers *when* it describes its HCD service *offering* and *when* it describes its
1198 HCD service *provisioning*, respectively. Specifically, the company uses
1199 (switched) access lines as the surrogate for customers when it describes its HCD
1200 service offerings.⁵⁴ In contrast and as noted earlier, the company uses billing

⁵⁴ See page 5-6 and Exhibit of Mr. Trimble’s direct testimony.

1201 accounts as the proxy for customers in counting the total numbers of customers
1202 when it describes its HCD service provisioning.⁵⁵

1203

1204 **Q. Do the same criticisms apply for FR and ATM services?**

1205

1206 A. Yes. Verizon uses (switched) access lines as the surrogate customers in assessing
1207 its FR and ATM service offerings.⁵⁶ It, however, uses “ports” as the proxy when
1208 assessing the FR (ATM) services it actually provides. The set of customers to
1209 whom the company provides FR (ATM) services should be a subset of customers
1210 to whom the company offers FR (or ATM) services. However, there is no clear
1211 relationship between the “ports” provided by Verizon and the access lines — i.e.,
1212 FR (ATM) lines — offered by Verizon. As a result, it is not possible to identify
1213 (or calculate the number of) the customers to whom the company currently
1214 provides FR (ATM) services (from the larger set of customers to whom it offers
1215 FR (ATM) services).

1216

1217 **Q. Verizon Exhibit DBT-1 lists the numbers of DSL lines in each of the xx**
1218 **exchanges where DSL services are offered. These numbers are equal to the**
1219 **numbers of (switched) access lines in each of the xx exchanges. Please**
1220 **comment.**

1221

1222 A. Yes. The number of *DSL lines* listed for each of the xx exchanges in Exhibit
1223 DBT-1 is equal to the number of total access lines in each of the xx exchanges.
1224 For example, in the Bloomington exchange, the listed *DSL lines* are x7xx,
1225 equal to the total number of access lines in the Bloomington exchange. The total

⁵⁵ See, Company response to Staff Data Request QL-3.

⁵⁶ See page 5-6 and Exhibit DBT-1 of Mr. Trimble’s direct testimony.

1226 of all listed *DSL lines* in each of the **xx** exchanges is **xx**.⁵⁷ Apparently, not
1227 all of these *DSL lines* are DSL-capable or ready for the provisioning of DSL
1228 services. The company presents the number, **xx** as the total DSL-capable
1229 lines (70% of the listed **xx** *DSL lines*). It is puzzling that the company
1230 would consider a line that is not DSL-capable a *DSL line* in a Section 13-517
1231 proceeding. In my opinion, the company should define a DSL line as a line that
1232 is DSL-capable and *over which DSL services are offered*, and provide the number
1233 of such lines for each of the **xx** exchanges (listed in Exhibit DBT-1) in rebuttal
1234 testimony.⁵⁸

1235
1236 **Q. In Table 1 of Mr. Trimble’s direct testimony, the DSL service offering of**
1237 **xx is calculated by dividing the total number of qualified DSL (DSL-**
1238 **capable) lines by the number of households.⁵⁹ Please comment.**

1239
1240 **A.** The percentage coverage statistic for DSL service should be expressed as the ratio
1241 of the number of customers who are offered DSL services to the total number of
1242 customers. Specifically, the numerator and denominator of the ratio should be
1243 measured in the same units – “customers”. If using a proxy for “customers”, the
1244 company should use the same proxy in the numerator and the denominator.
1245 Unfortunately, the company uses different proxies for “customers” in the
1246 numerator and denominator, when calculating its coverage statistic of **xx**. In
1247 the numerator it used access lines, and in the denominator it uses households.

⁵⁷ Note that the 229,595 is also the total number of access lines in the 16 exchanges combined.

⁵⁸ This is so because we are concerned with the numbers and percentages of customers to whom DSL services are offered, not with the numbers of lines that satisfy certain engineering parameters.

⁵⁹ According to the company’s response to Staff Data Request QL-22, DSL capable and qualified DSL lines are equivalent in its testimony.

1248 It should also be noted that Verizon's **xx** figure simply gives the
1249 number of DSL-capable lines *per household*, which does not have much bearing
1250 on the percentage of customers that have been offered DSL services.

1251
1252 **Q. Do you have other comments regarding Verizon's calculation of its **xx****
1253 **ratio?**

1254
1255 A. Yes. The company used households as a proxy when counting the total number
1256 of its customers (the denominator). Households, however, is not a good proxy for
1257 customers, as it does not count for (small or big) businesses. The **xx** figure
1258 further suffers from the fact that the numerator (expressed in access lines) counts
1259 for businesses as well as residential customers. Therefore, not only are Verizon's
1260 numerator and denominator measured in different units, they also count for
1261 different sets of "customers" — with the numerator reflecting both residential and
1262 business, and the denominator reflecting only residential.

1263
1264 **Q. Does the company's "households" includes households that are served by**
1265 **CLECs through Verizon's network facilities?**

1266
1267 A. It is unclear from the information provided by the company so far.

1268
1269 **Q. Are the company's households defined as in U.S. Census Bureau Statistics?**

1270
1271 A. A household in U.S. Census Bureau Statistics includes "all people who occupy a
1272 housing unit as their usual place of residence." It is unclear whether the
1273 company's households are similarly defined.

1274
1275 **Q. Verizon states that its "percent of DSL qualified lines exceeds 90 percent of**
1276 **the total households and business establishments". Please comment.**

1277
1278 A. Yes. The ratio of DSL-capable lines to the number of households plus the
1279 number of business establishments is not useful for assessing the percentage of
1280 customers to whom Verizon offers DSL services. The numerator of this ratio is
1281 measured in access lines, while the denominator of the ratio is measured in
1282 household (for residential) and establishments (for business). It is unclear what
1283 this figure has to do with the percentage of customers to whom Verizon offers
1284 DSL services under Section 13-517.

1285
1286 **Q. In response to a Staff Data Request, the company states that it does not have**
1287 **information on residential or business end-users that have DSL services.**
1288 **“Verizon can only count for the total number of DSL lines it has in service**
1289 **(LIS) and not how many are actually business or residential end users.”⁶⁰**
1290 **Please comment.**

1291
1292 A. Yes. Verizon possesses information on its residential, small business and big
1293 business access lines, and DSL services are provisioned over these access lines
1294 (or loops). The Commission should not accept Verizon’s claim that it does not
1295 have information on the types (residential/small business/big business) of those
1296 end-users who (subscribe to and) are provided access lines over which DSL
1297 services are provisioned without clear and convincing support for this claim.

1298
1299 **Q. In Exhibit DBT-1, the company uses the word “establishments”. Has the**
1300 **company explained its “establishments” in Exhibit DBT-1 of Mr. Trimble’s**
1301 **testimony and its “establishments” above?**

1302
1303 A. No. In Exhibit DBT-1, the company did not restrict its “establishments” to
1304 businesses. However, in its statement quoted above, the company appears to

⁶⁰ Company response to Staff Data Request QL-5.

1305 restrict “establishments” to businesses — “business establishments” and to
1306 distinguish “households” from “business establishments”. Not only it is unclear
1307 what the company means by “establishments”, but it also is unclear whether
1308 “establishments” in Exhibit DBT-1 has the same meaning as “establishments”
1309 used in the above-quoted Verizon statement.

1310
1311 **Q. Do you have any other comments regarding information provided by the**
1312 **company?**

1313
1314 **A.** Yes. In Staff Data Request QL-11, I request that the company provides
1315 information on customers who are located more than 18,000 ft from their COs *for*
1316 *each exchange*, the company instead provides information for each of the **xx** 11-
1317 digit CLLI codes.⁶¹ While each switch is assigned a unique 11-digit CLLI code,
1318 not every 11-digit CLLI represents a switch. Some CLLI codes are associated
1319 with telecommunications equipments (e.g., pair gain device) that are located
1320 outside the COs or simply on a street corner. Verizon claims to have **xx** switches
1321 in Table 3 of Mr. Trimble’s testimony. Thus at least a significant number of the
1322 **xx** 11-digit CLLI codes do not represent switches and they may represent
1323 telecommunications equipment that is even located outside the CO. Not only the
1324 company fails to provide information as requested, but also it is unclear what the
1325 company means by providing the number of customers who are located at more
1326 than 18,000 ft from a piece of telecommunications equipment which is not a

⁶¹ Company response to Staff Data Request QL-11. CLLI: Common Language Location Identifier.

1327 switch or even located in a CO. Worse, I cannot extract the requested information
1328 from what was provided by the company.

1329 Second, there seems to be some inconsistency between different data sets
1330 provided by the company. The company reports xx Central Office Locations in
1331 its response to Staff Data Request QL-3 while it reports xx switches in Table 3
1332 of Mr. Trimble's testimony. Verizon does not explain why it has more Central
1333 Office Locations than switches. Does this mean that some of its Central Office
1334 Locations do not have switches? Then why are they counted Central Office
1335 Locations? Moreover, while listing 414 exchanges in Exhibit DBT-1, Mr.
1336 Trimble references 413 exchanges in its testimony.⁶²

1337 Third, the company does not provide information in a standard or unified
1338 form, which makes it impossible to consolidate data sets provided or to extract
1339 usable information. For example, the company provides information by exchange
1340 in Exhibit DBT-1 and DBT-2, with the numbers of exchanges in these two
1341 Exhibits being different. The company, however, provides information by Central
1342 Office Location in its response to Staff Data Request QL-3. In its response to
1343 Staff Data Request QL-11, the company, when requested to provide information
1344 by exchange, provides information for each 11-digit CLLI codes (some of which
1345 may not represent any switches in any COs). Finally, there is no clear association
1346 between the company's (more than xx) wire centers (WCs) and (xx) Central
1347 Office Locations or (xx) exchanges. Thus, this non-uniformity in providing

⁶² See, for example, page 10 (Line 209) of Mr. Trimble's testimony.

1348 information makes it impossible to consolidate the different data sets and make
1349 use of information provided.

1350 Overall, much of the data provided by the company is of very poor quality
1351 and I have not been able to extract much usable information to facilitate my
1352 analysis.

1353
1354 **Q. Does this conclude your testimony?**

1355
1356 A. Yes.