

**BEFORE THE  
PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

**RECEIVED**

**JUN 16 2003**

**SOUTH DAKOTA PUBLIC  
UTILITIES COMMISSION**

**IN THE MATTER OF DETERMINING PRICES ) DOCKET NO. TC01-098  
FOR UNBUNDLED NETWORK ELEMENTS )  
(UNEs) IN QWEST CORPORATION'S )  
STATEMENT OF GENERALLY AVAILABLE )  
TERMS (SGAT) )**

**DIRECT TESTIMONY OF**

**MARK L. STACY**

On behalf of

**THE STAFF OF THE PUBLIC UTILITIES COMMISSION  
OF SOUTH DAKOTA**

June 16, 2003

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1 **INTRODUCTION**

2  
3 **Q. PLEASE, STATE YOUR NAME AND BUSINESS ADDRESS FOR THE**  
4 **RECORD.**

5 A. My name is Mark L. Stacy. My business address is 229 Stetson Dr., Cheyenne,  
6 Wyoming 82009.

7  
8 **Q. BY WHOM ARE YOU EMPLOYED?**

9 A. I am employed by QSI Consulting, Inc. (“QSI”).

10  
11 **Q. PLEASE DESCRIBE QSI AND YOUR POSITION WITH THE FIRM.**

12 A. QSI is a consulting firm specializing in the areas of telecommunications policy,  
13 econometric analysis and computer aided modeling. I am a Senior Consultant with QSI.

14  
15 **Q. PLEASE DESCRIBE YOUR EXPERIENCE WITH TELECOMMUNICATIONS**  
16 **POLICY ISSUES AND YOUR RELEVANT WORK HISTORY.**

17 A. Before joining QSI, I was President of Stacy & Stacy Consulting, LLC. Like QSI, Stacy  
18 & Stacy is a consulting firm providing consulting services to domestic and international  
19 telecommunications carriers. During my tenure at Stacy & Stacy, I testified on behalf of  
20 a number of clients in regulatory proceedings in the western United States on a wide  
21 range of subjects.

22 Before joining Stacy & Stacy, I was employed by Kenetech Windpower, Inc., where I  
23 was the regional manager of business and project development for the Rocky Mountain

24 Region. Before my tenure at Kenetech, I was the Chief Economist for the Wyoming  
25 Public Service Commission. While at the Wyoming PSC, I was responsible for  
26 providing the Commission with a wide range of policy, economic, and technical expertise  
27 regarding telecommunications and other public utility issues.

28 In addition to my occupational experience, I hold a Bachelor of Science degree in  
29 Geology and a Master of Science degree in Public Utility and Regulatory Economics  
30 from the University of Wyoming.

31

32 **Q. HAVE YOU PROVIDED TESTIMONY AND ADVOCACY BEFORE STATE**  
33 **UTILITY COMMISSIONS IN THE PAST?**

34 A. Yes. Over the past 11 years, I have provided testimony and advocacy before state utility  
35 commissions in the following states: Arizona, Colorado, Connecticut, Florida, Idaho,  
36 Indiana, Montana, Nebraska, New Mexico, New Jersey, New York, North Carolina,  
37 North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin and  
38 Wyoming.

39

40 **PURPOSE AND SUMMARY**

41

42 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

43 A. The Staff of the Public Utilities Commission of South Dakota has asked me to evaluate  
44 Qwest's testimony and cost studies for Unbundled Network Elements (UNEs), which  
45 have been submitted to the South Dakota Public Utilities Commission (Commission) in  
46 DOCKET NO. TC01-098.

47

48 I have reviewed and considered all relevant testimony and documentation that Qwest  
49 provided in support of its South Dakota non-recurring charges (NRCs). I have made  
50 recommendations for changes to Qwest NRCs in the text of this testimony.

51

52 **Q. WHICH NONRECURRING COST STUDIES DID YOU REVIEW?**

53 A. I reviewed all of the cost studies filed by Qwest that deal with nonrecurring costs in my  
54 review of Qwest's filing. I have focused my attention on the October 29, 2002 SD NRC  
55 STUDY 6454 (NRC STUDY), and the following discussion and criticism is directed at  
56 that study.

57

58 **Q. PLEASE, SUMMARIZE THE FINDINGS THAT YOU PRESENT IN YOUR**  
59 **TESTIMONY.**

60 A. Based on a review of the testimony filed by Qwest in this case, and Qwest's NRC  
61 STUDY, I have concluded that the study is deficient in the following areas:

- 62 1. There are flaws in the cost study methodology as it relates to the validity of the  
63 data relied upon by Qwest to generate NRCs. Because the data relied upon by  
64 Qwest is questionable, the results of the NRC studies are not reliable.
- 65 2. Qwest's NRC studies and calculations are not forward-looking and are  
66 inconsistent with the Total Element Long Run Incremental Cost (TELRIC) cost  
67 methodology, which requires that costs be measured based on the most efficient  
68 telecommunications technology currently available.

69           3.       Qwest has not assumed the utilization of forward-looking currently available  
70                   operational support systems in calculating nonrecurring charges in its NRC  
71                   STUDY. The failure to account for such systems overstates NRCs.

72           4.       Qwest has not demonstrated that it utilizes an efficient process in provisioning  
73                   nonrecurring elements. Failure to incorporate such an assumption will result in  
74                   the overstatement of NRCs.

75

76           The Qwest NRC STUDY is flawed and the Commission can not rely upon it to produce  
77                   nonrecurring rates that are compliant with FCC pricing rules, or TELRIC principles.

78           Because the NRC STUDY as presented by Qwest in this proceeding is fatally flawed, I  
79                   recommend that the Commission reject the Qwest-proposed nonrecurring rates, instead  
80                   adopt the results of the NRC STUDY incorporating the changes and adjustments to the  
81                   study supported by me and my colleague, Mr. Sid Morrison. The rates generated after  
82                   incorporating these changes and adjustments would be more in line with existing pricing  
83                   standards and TELRIC principles. These rates should be in effect on an interim basis,  
84                   until such time as Qwest performs and provides the results of a properly conducted time  
85                   and motion study that would validate the critical task time inputs on which the study  
86                   depends and the South Dakota Commission has had an opportunity to conduct a hearing  
87                   on the appropriateness of the results of Qwest's time and motion study.

88

89 **Q. DURING THE PROCESS OF REVIEWING AND EVALUATING QWEST'S**  
90 **SOUTH DAKOTA NRC STUDY DOCUMENTATION AND TESTIMONY, CAN**  
91 **YOU EXPLAIN THE FRAMEWORK YOU UTILIZED?**

92 A. I evaluated Qwest's testimony and cost studies with the understanding that the cost  
93 studies must be based on the utilization of the most efficient technology available, and  
94 that the nonrecurring costs generated by Qwest's model should be forward-looking in  
95 nature.

96

97 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

98 A. In the following section of my testimony, I provide the Commission with general  
99 criticisms of the Qwest NRC STUDY relating to methodological issues. In the  
100 subsequent section of my testimony, I address other deficiencies of Qwest's NRC  
101 STUDY relating to the assumed use of currently available OSS technologies, and the  
102 failure of Qwest to incorporate assumptions that Qwest operates efficiently in the  
103 provisioning of nonrecurring elements. I conclude my testimony by discussing the anti-  
104 competitive ramifications of the Qwest-proposed nonrecurring rates in South Dakota.

105

106 **METHODOLOGICAL PROBLEMS WITH QWEST'S NRC STUDY**

107

108 **Q. CAN YOU DESCRIBE WHAT INFORMATION IS NECESSARY FOR THE**  
109 **COMMISSION TO MAKE AN INFORMED DECISION IN THIS CASE**  
110 **REGARDING NRCS?**

111 A. Yes. In order for the Commission to accept the nonrecurring rates generated by the  
112 Qwest NRC STUDY, the methodology used in generating the rates must be valid. This  
113 section of my testimony focuses on the methodological issues and addresses the general  
114 deficiencies and unreliability of the inputs to the NRC STUDY. Because the study's  
115 results are directly related to estimates obtained from Qwest subject matter experts  
116 (SMEs), it is critical that these data inputs can be relied upon to produce costs that are  
117 representative of forward-looking nonrecurring costs in South Dakota.

118

119 **Q. HAS QWEST ESTIMATED NRCS IN THIS PROCEEDING IN SUCH A WAY**  
120 **THAT THE COMMISSION CAN HAVE CONFIDENCE IN WHAT QWEST HAS**  
121 **PRESENTED, AND THAT THE RESULTING RATES ARE IN COMPLIANCE**  
122 **WITH EXISTING PRICING STANDARDS?**

123 A. No, Qwest has estimated the work times and probability of occurrence factors associated  
124 with the tasks included in its NRC STUDY relying entirely on information gathered from  
125 SMEs who are Qwest employees. I have several concerns regarding the methodology  
126 Qwest used for developing task completion durations and the probability of occurrence of  
127 those tasks, and consequently, the validity of the NRC STUDY results since it is  
128 completely reliant upon such inputs. Qwest has failed to provide the Commission with  
129 any validation whatsoever with respect to these critical inputs, and therefore, Qwest's  
130 NRC STUDY must be considered to be deficient. Based upon these deficiencies, there is  
131 not sufficient reason for the Commission to have confidence in the nonrecurring rates



132 produced by the model, and there are sufficient grounds for the Commission to reject  
133 Qwest's proposed NRCs.

134

135 **Q. PLEASE PROVIDE THE COMMISSION WITH SPECIFIC CONCERNS THAT**  
136 **YOU HAVE WITH RESPECT TO THE METHODOLOGY USED BY QWEST IN**  
137 **THIS PROCEEDING.**

138 A. As noted, Qwest has relied entirely upon information provided by Qwest subject matter  
139 experts for the critical task time and occurrence probability inputs to the NRC STUDY.  
140 The reliance on SMEs to estimate activity times and probability of occurrence presents a  
141 problem in that it is difficult to quantify the subjective nature of the SMEs' opinions.  
142 Because the NRC STUDY results are so closely tied to these SME opinions, the costs  
143 generated by the model are not reliable unless the information has been validated.

144

145 **Q. WHAT COULD QWEST DO TO PROVIDE THE COMMISSION WITH SOME**  
146 **ASSURANCE THAT THE ESTIMATES OF QWEST SMES ARE VALID?**

147 A. There are a number of things that Qwest could have done to support the work time and  
148 probability inputs which are critical to the development of NRC rates. First, Qwest could  
149 have required the individuals who provided the inputs to the NRC STUDY to participate  
150 in this case. The SMEs who were responsible for estimating these critical inputs into the  
151 NRC STUDY have not filed testimony in this proceeding. Therefore, these individuals  
152 do not have to swear to the correctness or truthfulness of those estimates or to face  
153 questioning from the parties to this case or the Commission. Alternatively, Qwest could

154 have engaged an independent third party to audit and verify the results obtained from its  
155 models and provided the results of such an audit as evidence that task time durations and  
156 occurrence probabilities are valid. Qwest did not do this either. Finally, Qwest could  
157 have provided validation for their estimates by performing time and motion studies for  
158 the tasks at issue as Qwest was ordered to do by the Washington Utilities and  
159 Transportation Commission<sup>1</sup>. Any one of these options may have given the Commission  
160 comfort that the time estimates were not overstated or biased however, Qwest chose not  
161 to provide the Commission with these assurances. In fact, Qwest does not provide any  
162 support whatsoever to establish that its survey results are at all reliable or unbiased.

163

164 **Q. IN ADDITION TO NOT PROVIDING SUPPORT FOR THE ESTIMATED**  
165 **TIMES AND OCCURRENCE PROBABILITY FACTORS, ARE THERE OTHER**  
166 **ISSUES WITH RESPECT TO THE PROCESS USED BY QWEST TO GATHER**  
167 **SUCH DATA THAT THE COMMISSION SHOULD BE AWARE OF?**

168 A. Yes. It is my opinion that the process used by Qwest to gather this critical data that is  
169 used to generate NRC rates is flawed. This is due to the fact that there is no “paper trail”  
170 that can be followed to determine whether or not the estimates provided by Qwest’s  
171 SMEs were provided using assumptions consistent with TELRIC pricing principles. In  
172 the absence of such data, it is impossible to know whether SME’s estimated times and  
173 probabilities represent forward-looking operations, today’s operations, or the operations  
174 from 20 years ago.

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<sup>1</sup> Docket UT-003013

175

176 **Q. DOES QWEST HAVE A CLEAR PROCESS FOR INSTRUCTING THE SMES AS**  
177 **TO WHAT THEY ARE SUPPOSED TO BE ACCOMPLISHING WHEN**  
178 **ESTIMATING TIME AND PROBABILITIES FOR THE NRC TASKS?**

179 A. No. Although Qwest purports to provide SMEs with instructions regarding how to go  
180 about determining time estimates and probability of occurrence to ensure that the  
181 estimations reflect a forward-looking network and are consistent with TELRIC  
182 principles, there is a lack of documentation regarding any instructions given to SMEs. In  
183 fact, QSI has learned from Qwest personnel that Qwest provides no written instructions  
184 to the SMEs to ensure that these principles are considered when determining these model  
185 inputs. This is clearly inconsistent with the process other ILECs have in place with  
186 respect to accomplishing the same task, as other ILECs *do* provide detailed written  
187 instructions to be followed by SMEs in developing these estimates. Absent this  
188 documentation, it is unclear as to whether Qwest's SMEs have made estimates assuming  
189 a forward-looking network, anticipating process efficiencies and/or mechanization, that  
190 the estimates do not include supplements to the initial order, include maintenance or  
191 repair time, or that downtime (such as breaks etc.) are not to be included in the  
192 estimation. Absent such written documentation, it is not even possible to verify that  
193 Qwest's SMEs had a clear understanding of what they were to do, how they were to do it,  
194 or even the purpose of the estimates.

195

196 **Q. PLEASE DESCRIBE IN MORE DETAIL WHAT YOU HAVE LEARNED**  
197 **ABOUT THE PROCESS QWEST RELIES UPON TO GATHER THIS CRITICAL**  
198 **DATA.**

199 A. QSI was retained to perform consulting services on behalf of the New Mexico Public  
200 Regulation Commission Staff in the recent TELRIC UNE proceeding in New Mexico  
201 that is analogous to this proceeding in South Dakota (New Mexico Public Regulation  
202 Commission Case No 3495 – Phase B). As was the case in South Dakota, QSI’s  
203 involvement in the UNE proceeding included the attendance of a technical conference  
204 held at Qwest headquarters in Denver, Colorado on February 7 and 8, 2002. At the New  
205 Mexico technical conference, QSI was provided with a document entitled  
206 “NONRECURRING ELEMENTS – NEW MEXICO”, the stated purpose of which is to  
207 support the nonrecurring cost studies for unbundled network elements. Qwest filed a  
208 similar document in North Dakota (Case No. PU-2342-01-296) entitled “SUPPORTING  
209 DOCUMENTATION FOR QWEST’S NONRECURRING COST STUDY”. These  
210 documents will be referred to henceforth in my testimony and the testimony of Mr. Sid  
211 Morrison as “Qwest’s NRC Support Documents” (See attachment MLS\_1). In each of  
212 these documents, it is stated that:

213 Nonrecurring cost studies are developed to include work activity time estimates and  
214 probabilities of occurrence as determined by Subject Matter Experts (SME) that represent  
215 a work center or work group identified in the processing and provisioning of service.  
216 The SME is a recognized expert in regard to the processes and has experience with the  
217 work activities being estimated and in addition will consult with other subject matter  
218 experts that either manage or currently perform the work activities being studied.  
219

220 Unfortunately, the SME’s who are responsible for providing these critical inputs do not  
221 appear before the Commission in this case, and, as I will explain below, the process used

222 in gathering and estimating these inputs is haphazard, fraught with potential problems,  
223 and extremely unlikely to result in inputs that are consistent with forward-looking,  
224 TELRIC pricing principles.

225

226 **Q. PLEASE EXPLAIN IN FURTHER DETAIL THE PROBLEMS YOU HAVE**  
227 **DISCOVERED WITH RESPECT TO QWEST'S NONRECURRING COST**  
228 **STUDY INPUTS**

229 A. Through the discovery process in the New Mexico Docket QSI has learned that the  
230 process relied upon by Qwest to gather NRC supporting data is fraught with  
231 opportunities for inaccuracy and even abuse. Qwest admits in response to Staff Request  
232 No. 03-001 in the New Mexico Docket that “There were no formal written instructions  
233 provided to the subject matter experts (SMEs) that provide the time estimates and  
234 probabilities for the nonrecurring studies”. Rather than relying on a more formal (and  
235 directly observable) set of written instructions to the SMEs, Qwest instead disseminates  
236 this information (on which the results of its NRC models are dependent) through the  
237 haphazard (and unauditible) method of conversations on conference calls, team  
238 meetings, and e-mails. In other words, instructions to SMEs are not documented.  
239 Without such documentation, the Commission has no way of knowing what instructions  
240 were given to the SMEs, no way of knowing if the SME made estimates based on  
241 forward-looking assumptions no way of knowing if the SMEs knew that the estimates  
242 would be used to develop CLEC costs, and, really, no way of knowing if the SME (or

243 any of the SMEs that were consulted) was told to overstate the times and probabilities in  
244 order to increase costs to Qwest's competitors.

245

246 **Q. WHAT IS THE RESULT OF THIS METHODOLOGICAL DEFICIENCY?**

247 A. This slipshod approach to gathering this important data represents a fatal flaw in Qwest's  
248 NRC model. Since the results of the model are tied directly to these estimates, and this  
249 uncertainty exists, the Commission should not view Qwest's proposed NRCs as being  
250 consistent with TELRIC principles. In fact, as I will discuss below, given the incentives  
251 of the SMEs, the Commission should anticipate that SMEs' estimations would be  
252 overstated, and that the resulting NRCs would be inflated.

253

254 **Q. ARE THERE OTHER CONCERNS WITH THE METHODOLOGY USED IN**  
255 **THE NRC STUDY AS IT RELATES TO HOW INFORMATION WAS**  
256 **GATHERED AND RECORDED?**

257 A. Yes. Yet another concern in this area relates to the information provided by Qwest with  
258 respect to the manner in which work time estimates were obtained. According to  
259 Qwest's NRC Support Documents, the work times estimated by the SMEs charged with  
260 that task are average work times. In developing these average times, presumably, there  
261 were some number of estimates given by various SMEs, and those estimates were totaled  
262 and then divided by the number of estimations to produce the "average" estimated time,  
263 and presumably, these results ranged from lower times to higher times. Qwest, in  
264 response to New Mexico Staff Request 03-017 described the process of developing these

265 average work time estimates as “often a collaborative process wherein a group of experts  
266 and technicians meet to discuss the tasks and work activities performed. During that  
267 collaborative process each participant provides input, the estimates are determined and  
268 the data resulting from the group’s consensus is provided to the cost analyst. No other  
269 data from the SMEs is provided to the cost analyst.”

270

271 **Q. IS THERE A PROBLEM WITH RELYING ON AVERAGE WORK TIMES?**

272 A. Yes. As noted previously, this “collaboration” which relies on the input of multiple  
273 “experts” is entirely undocumented, and therefore, the average times relied upon by  
274 Qwest for the development of nonrecurring rates are not supported. Additionally, Qwest  
275 is not specific regarding these times within the NRC STUDY; for instance, there is no  
276 discussion of the highest, lowest, average, and median times associated with each of the  
277 work activities analyzed and averaged, nor are there calculations for such times within  
278 the NRC model. Such information is valuable to the Commission and other parties for at  
279 least two reasons. First, the ability of the parties to evaluate the data using this more  
280 complete set of information would provide a better opportunity to identify statistical  
281 outliers, which the analysis should address. For example, task time inputs currently used  
282 in the NRC STUDY that are based on performance of certain tasks which occurred under  
283 abnormal conditions which may involve longer than usual completion times would  
284 inappropriately skew the average task times utilized within the study, resulting in  
285 overstated times, and inflated nonrecurring rates. Second, since rates generated by the  
286 NRC STUDY should be based on forward-looking, least-cost principles and since lower

287 times may reflect more efficient operations, time estimates that are lower than the  
288 average are likely the best times to be used as inputs into the model. Running the model  
289 using these more efficient times would obviously produce lower nonrecurring costs than  
290 those produced using average costs and mitigate the extent to which the model's results  
291 contain inherent bias.

292

293 **Q. WHY WOULD THE MODEL BE BIASED?**

294 A. Any time an ILEC relies entirely on its own employees to provide estimates that will  
295 have a direct impact on the ability of its competitors to compete there should be a  
296 concern that the estimates will contain bias. Relying on the lowest work times would  
297 mitigate the inherent bias the estimators (who are all Qwest employees) may have in  
298 participating in the development of prices for Qwest's competitors. Importantly, because  
299 the estimates given by these Qwest employees are directly related to the NRCs generated  
300 by the model, even the most explicit instructions on how to estimate work times could  
301 not totally eliminate inherent bias against CLECs. This is because CLEC success is  
302 directly related to resulting rates, and the success of those competing CLECs may impact  
303 the financial health and competitive standing of Qwest and therefore the job security of  
304 the SMEs providing the estimates. Therefore, Qwest employees likely have some  
305 incentive to overstate task times and probability factors, resulting in excessive NRC rates  
306 for CLECs. This is of particular concern given the fact that there is no documentation of  
307 how SMEs were instructed before providing these estimates, those SMEs do not swear to  
308 their estimates, and the parties do not have the opportunity to cross examine these SMEs.



309           Consequently, the Commission cannot be certain that Qwest's task times are reliable or  
310           representative of an efficient carrier. In fact, based on the lack of support provided by  
311           Qwest with respect to the methodologies used in gathering this critical data, along with  
312           the fact that this data is likely skewed, the Commission should view the Qwest task times  
313           with a high degree of skepticism, and those times should be rejected.

314

315   **Q.   HAVE OTHER JURISDICTIONS RECOGNIZED THIS POTENTIAL FOR BIAS**  
316   **AND THE FLAW OF RELYING ON AVERAGE RATHER THAN MINIMUM**  
317   **WORK TIMES IN THE CALCULATION OF NONRECURRING COSTS?**

318   A.   Yes. The Massachusetts Department of Energy and Telecommunications has recognized  
319   in D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-L, that there were  
320   serious flaws in the methodology used by Verizon, which, like Qwest, used average times  
321   as opposed to minimum times. In that proceeding, the Massachusetts Department  
322   determined that in order to reduce the strong likelihood of bias when, among other things,  
323   employees are instructed to provide estimates that will be used to derive charges for  
324   competitors, the Department ordered Verizon to rely on minimum rather than average  
325   work time estimates in deriving its NRCs. In the absence of verifiable time and motion  
326   studies, this Commission should, as a short term solution find as the Department has  
327   found in Massachusetts to eliminate the bias from the Qwest study and the nonrecurring  
328   rates it generates by adopting the adjustments to the NRC STUDY advocated by Mr.  
329   Morrison. This Commission should, as a long term solution, require Qwest to conduct  
330   time and motion studies (with the other parties to this case participating) which may

331 provide valid inputs to the NRC STUDY, and rates that are consistent with TELRIC  
332 standards.

333

334 **Q. HAVE OTHER COMMISSIONS IN THE QWEST REGION COME TO THE**  
335 **SAME CONCLUSION AS YOU WITH RESPECT TO QWEST'S LACK OF**  
336 **DOCUMENTATION REGARDING SME TASK TIME ESTIMATES?**

337 A. Yes, the Washington Utilities and Transportation Commission, In the Matter of the  
338 Continued Costing and pricing of Unbundled Network Elements, Transport, Termination  
339 and Resale, Brief of Commission Staff, Docket No. UT-0030013, Part B, May 29, 2001  
340 made the following observation concerning just this issue

341

342 The cost studies that Qwest filed in this case are based on Qwest's actual  
343 experience or company practice (TR 1821; Ex. T-1001, page 5; *See also* Ex. 101,  
344 pages 7-8), although they purport to yield forward-looking replacement costs.  
345 The time estimates for various activities are based on the estimates of subject-  
346 matter experts (SMEs). However, as brought out in the cross-examination of Ms.  
347 Million by Ms. Steele (*See* TR 1834-1836), the information provided to the  
348 SME's to produce those estimates, and the detail of the activities performed, are  
349 not in the record. The Commission requested that, in briefs, the parties address  
350 the issue of how it can validate the reasonableness of the opinions of the SMEs  
351 (Commission Issue No. 1). It is Staff's view that, without time and motion  
352 studies or the opportunity to observe the activities that are performed, it is  
353 difficult, if not impossible, to obtain such validation.  
354

355 Clearly, the WUTC addressed the same issues in that proceeding which I am bringing to  
356 the Commission's attention here.

357

358 **Q. HOW DID THE WASHINGTON COMMISSION RESOLVE THE ISSUE?**

359 A. In order to address the issue that Qwest presented an NRC cost study that was completely  
360 unsupported, the Washington Commission went on to order in Docket No. UT-0030013,  
361 in the Forty-First Supplemental Order, Part D, October 11, 2002, at paragraph 66, that  
362 “the submission of nonrecurring cost studies without supporting time and motion data in  
363 the future will be rejected absent extraordinary circumstances.” (emphasis added).  
364 Staff would argue that in the absence of properly conducted time and motion studies  
365 which provide support for the critical task time inputs to Qwest’s NRC STUDY, the  
366 South Dakota Commission can not conclude that the resulting nonrecurring rates  
367 generated by that study are in compliance with TELRIC principles or FCC pricing rules.

368

369 **Q. IS IT YOUR TESTIMONY THAT IN THE ABSENCE OF PROPERLY**  
370 **CONDUCTED TIME AND MOTION STUDIES THE USE OF SUBJECT**  
371 **MATTER EXPERTS FOR PURPOSES OF OBTAINING TASK TIME AND**  
372 **PROBABILITY OF OCCURRENCE ESTIMATES IS INHERENTLY**  
373 **INAPPROPRIATE?**

374 A. No. In fact, my colleague Mr. Morrison (who is an experienced subject matter expert in  
375 this area) makes adjustments to the Qwest NRC STUDY by advocating alternative task  
376 times to be used as inputs. However, in stark contrast to the Qwest SMEs who are  
377 responsible for providing the Qwest-sponsored task time inputs, Mr. Morrison will take  
378 the stand in this proceeding and will be available for cross-examination by the parties and  
379 the Commission. The collaborative process utilized by Qwest does not allow the parties  
380 or the Commission to cross-examine the individuals responsible for providing the critical

381 inputs. The fact that these critical times are provided by faceless Qwest employees who  
382 are not required to swear to the accuracy of their estimates further frustrates the parties'  
383 and Commission's attempt to determine whether those estimates are in fact compliant  
384 with TELRIC pricing principles. Mr. Morrison has either performed or directly  
385 supervised technicians who perform the tasks at issue in this case, and he will appear on  
386 the witness stand to fully support any adjustments he has made to the NRC STUDY.

387

388 **Q. IS THE FACT THAT MR. MORRISON IS FILING TESTIMONY IN THIS CASE**  
389 **AND WILL APPEAR BEFORE THE COMMISSION THE ONLY DIFFERENCE?**

390 A. No. As I understand it, Qwest relies on multiple levels of review in order to obtain its  
391 estimates, with each level of review having the opportunity and responsibility of  
392 "tweaking" the original estimated values. While I am not specifically criticizing any of  
393 the levels of review, I do think that after so many iterations, the potential exists for a  
394 number to be produced that has very little basis in reality. As noted previously in my  
395 testimony, there is no documentation regarding the instructions given to the Qwest SMEs  
396 which could lend support to Qwest's claim that those estimates are consistent with  
397 established pricing rules.

398 Additionally, when multiple levels of review are relied upon, validation of the result  
399 becomes even more important. Averaging and re-averaging a set of numbers over and  
400 over again creates the potential that the original objective becomes lost -- that being, to  
401 generate task times to be used in the calculation of forward-looking costs (especially in  
402 light of a potential anti-CLEC bias at each level of review). Without knowing

403 information such as the identity of the SMEs who are responsible for estimating work  
404 times, the qualifications of the SMEs who are responsible for estimating the work times  
405 and so on, it is difficult for the Commission to take the estimates seriously.  
406 Given these facts, Qwest's proposed nonrecurring rates must be rejected by this  
407 Commission.

408

409 **Q. HAVE YOU OBSERVED SIMILAR DEFICIENCIES WITH RESPECT TO**  
410 **QWEST'S PROBABILITY OF OCCURRENCE ESTIMATES?**

411 A. Yes. The probability of occurrence factors relied upon by Qwest in its NRC STUDY are  
412 faulty in the same manner as the task time estimates with respect to the methodological  
413 flaws I have discussed above. Since these probability factors reflect the extent to which  
414 the tasks even need to be performed (and the extent to which Qwest needs to recover  
415 those costs), questions regarding the validity of those factors have a significant impact on  
416 the resulting NRCs. These factors, along with the task times used by Qwest in its NRC  
417 STUDY have resulted in NRCs that are significantly overstated.

418

419 **Q. BASED ON YOUR EDUCATION AND EXPERIENCE, WHAT IS YOUR**  
420 **CONCLUSION WITH RESPECT TO THE METHODOLOGICAL APPROACH**  
421 **TAKEN BY QWEST IN DEVELOPING ITS NONRECURRING COSTS IN THIS**  
422 **PROCEEDING.**

423 A. Based on my review, I have determined that the methodologies relied upon by Qwest  
424 introduce flaws into the NRC STUDY. The resulting NRC rates are therefore

425 unsubstantiated and not based on FCC-required TELRIC principles. In the long run, this  
426 Commission can only be assured of the validity of the critical task time inputs (and the  
427 corresponding validity of nonrecurring rates) by requiring Qwest to utilize the results of  
428 properly conducted time and motion studies. The Commission should adopt the  
429 nonrecurring rates proposed by Mr. Morrison in this proceeding on an interim basis until  
430 such time as Qwest can provide such supporting evidence.

431

432 **Q. DO YOU RECOMMEND THAT THE COMMISSION ORDER REQUIRING**  
433 **THAT FUTURE NRC STUDIES BE BASED ON TIME AND MOTION STUDIES?**

434 A. Yes. Qwest is in the process of complying with just such an Order from the Washington  
435 Commission. Nonrecurring rates in South Dakota should be based on this valid data as  
436 well.

437

438 **Q. HOW SHOULD THE COMMISSION DEAL WITH THIS ISSUE ABSENT THE**  
439 **EXISTENCE OF TIME AND MOTION STUDIES TO SUPPORT ITS NRC**  
440 **STUDY IN THIS CASE?**

441 A. Absent such studies, the Commission should adopt Mr. Morrison's proposed NRC rates.  
442 This will eliminate some of the impediments to the competitive market in South Dakota  
443 in a timely manner.  
444 Even though I believe that the only way to have true and correct data for NRC inputs is to  
445 use inputs from a properly conducted time and motion study, I realize that even if the  
446 Commission acts on my recommendation and orders such studies for Qwest in South

447 Dakota, that those inputs would not be available for some time. CLECs in South Dakota  
448 are currently faced with NRC charges that are orders of magnitude higher than what  
449 would be consistent with TELRIC principles, and (as I will discuss later in my  
450 testimony), the competitive market in South Dakota suffers as a result. The  
451 methodological deficiencies I have identified are, in and of themselves, sufficient  
452 grounds for the Commission to reject Qwest's NRC study. The Commission should do  
453 so. I will provide further support for such a decision in the next section of my testimony,  
454 and Mr. Morrison will provide support for adopting a modified NRC STUDY (pending  
455 time and motion studies) in his testimony which does not suffer from the faults that the  
456 Qwest study suffers from, and would allow for competition to progress upon its adoption.

457

458 **OTHER NRC STUDY FLAWS**

459

460 **Q. HAVE YOU OBSERVED OTHER DEFICIENCIES WITH THE NRC STUDY?**

461 A. Yes. In its NRC STUDY, Qwest has overstated costs by apparently failing to consider  
462 and/or account for efficiencies resulting from enhanced Operation Support Systems. This  
463 failure to consider OSS improvements and to implement process improvements, which  
464 would allow for increased mechanization in responding to CLEC orders, has resulted in  
465 an overstatement of the manual intervention required in handling orders and, therefore,  
466 results in an overstatement of the nonrecurring costs associated with these orders. In  
467 today's telecommunications environment, automation can be expected to displace much  
468 of the need for telecommunications technicians to handle orders manually. When orders

469 “flow through” the system on an automated basis, significant cost savings can occur. A  
470 review of the Qwest filing reveals the existence of OSS technology platforms that have  
471 the potential of providing these cost efficiencies. These systems should be expected to  
472 increase system flow-through (decrease the need for manual intervention) and  
473 significantly decrease costs. OSS can only provide efficiency savings when used in  
474 conjunction with the associated connection process. In other words, if Qwest has access  
475 to these technology platforms, but is not (1) using these systems to perform these  
476 activities; (2) nor reflecting the efficiencies of this technology in its NRC STUDY, then  
477 the NRC STUDY will overstate costs.

478

479 **Q. IS QWEST OVERSTATING COSTS BY UNDERSTATING ITS ABILITY TO**  
480 **TAKE ADVANTAGE OF CURRENTLY AVAILABLE SYSTEMS?**

481 A. It is my conclusion that Qwest is indeed overstating costs in its NRC STUDY in this  
482 manner. As Mr. Morrison will discuss in additional detail, many activities detailed in the  
483 cost model indicate excessive fallout probabilities that are not consistent with state-of-  
484 the-art practices, that ignore process improvement methods, and consequently, overlook  
485 forward-looking cost savings potential. This failure to consider these technological  
486 advances in the model is a flaw in that reasonable forward-looking assumptions are  
487 disregarded. In the NRC STUDY, the probability factors reflect the extent to which  
488 Qwest makes use of state-of-the-art Operational Support Systems and to which orders  
489 “flow through” or alternatively fall out of a mechanized system. The flow through rate  
490 associated with each task can have a significant impact on nonrecurring costs. It is



491 extremely important in the context of nonrecurring cost studies that historical fallout rates  
492 be adjusted to reflect technological efficiencies and process improvements.

493

494 **Q. YOU MENTIONED PREVIOUSLY, THAT IN YOUR REVIEW OF THE QWEST**  
495 **FILING, THE EXISTENCE OF OSS TECHNOLOGY PLATFORMS THAT**  
496 **HAVE THE CAPABILITY OF PROVIDING COST EFFICIENCIES WAS**  
497 **REVEALED. CAN YOU COMMENT FURTHER ON THAT OBSERVATION?**

498 A. Yes. As Mr. Morrison will discuss in greater detail in his testimony, the probability  
499 factors used in the NRC STUDY do not reflect the flow through capabilities of the state-  
500 of-the-art technologies widely available to telecommunications carriers. In order to  
501 present this Commission with nonrecurring costs that reflect forward-looking costing  
502 principles, Mr. Morrison advocates making adjustments to the NRC STUDY to reflect a  
503 2% fallout factor. It is reasonable to expect a fallout rate of 2% to reflect forward-  
504 looking quality/cost efficiencies from a company that is committed to ongoing process  
505 improvements. In fact, the state Commissions in Connecticut (Docket No. 97-04-10,  
506 May 20, 1998 and Docket No. 98-09-01, January 5, 2000) Michigan (Case No. U-11280  
507 -- November, 1999) and Massachusetts (Docket No. D.P.U./D.T.E. 96-73/74, 96-75, 96-  
508 83, 96-94-Phase 4-L Consolidated Arbitration Ruling, October 19, 1999) have ordered  
509 2% fallout factors to be applied to the entire nonrecurring cost estimation process.  
510 Further, it is important to view fallout in the context of the complete connect process  
511 rather than accepting it at each process step, which would in effect, compound the quality  
512 failure effecting customer service. Therefore, in order to appropriately apply fallout, the

513 fallout factor should be incorporated once to the *entire* process rather than to each step in  
514 the process.

515

516 **Q. WHAT DOES THE 2% FALLOUT FACTOR REPRESENT IN TERMS OF**  
517 **TODAY'S TECHNOLOGIES?**

518 A. The 2% fallout rate reflects technological advances that have occurred over the past years  
519 and is reasonably attainable by Qwest. Over the past five decades, technology has  
520 evolved from an era when most connect and disconnect activities were performed on a  
521 manual basis, to a point where mechanization of these activities began to occur through  
522 the utilization of stand-alone databases. An example of such technological advances  
523 would be the replacement of paper records with databases in the 1950s. This  
524 technological improvement reduced the time associated with telephone company  
525 employees finding information. Over the past fifty years, such advances have reduced,  
526 and in some cases eliminated, the need for manual intervention and allowed tasks to  
527 “flow through” a mechanized system where activities occur by way of systems  
528 interacting directly with other systems to provide a given output. Over the past ten years,  
529 systems have been further automated so that support systems and related databases have  
530 been coupled with intelligent network elements that allow all of the activity steps  
531 required to connect and/or disconnect services to be automated, thereby eliminating the  
532 need for manual intervention in many cases.

533

534 **Q. DO EFFICIENT CARRIERS TYPICALLY HAVE PROCESSES IN PLACE**  
535 **THAT IDENTIFY THE CAUSE OF FALLOUT SO THAT FLOW-THROUGH**  
536 **CAN BE MAXIMIZED?**

537 A. Yes. Efficient carriers have a formalized process which allows them to achieve  
538 maximum flow through and to minimize manual intervention and costs.

539

540 **Q. IS QWEST'S NRC STUDY BASED ON SUCH A FORWARD-LOOKING**  
541 **PROCESS?**

542 A. No. The FCC's basic TELRIC costing principles dictate that a forward-looking  
543 methodology must be used to determine the costs associated with unbundled network  
544 elements' nonrecurring costs by making use of the most efficient technology available.  
545 Therefore, once an efficient baseline is established, it is critical that the NRC STUDY  
546 reflect a forward-looking efficient framework. A review of the testimony and cost  
547 studies filed by Qwest in this proceeding suggests that the rates generated by the NRC  
548 STUDY are not based on forward-looking or efficiency-enhancing concepts.

549

550 **Q. CAN YOU EXPLAIN HOW YOU CAME TO THAT CONCLUSION?**

551 A. Yes. It is important that Qwest have a process in place designed to ensure the efficient  
552 use of technology. Ignoring situations in which technology could be better used to avoid  
553 repeated manual handling of problems is neither forward-looking nor efficient. An order  
554 that falls out of a designed OSS flow-through process, which has the potential for  
555 generating significant manual work in order to resolve the associated problem over a

556 three year time horizon, creates the type of manual work that is a candidate for  
557 elimination by applying basic quality improvement procedures or a forward-looking  
558 technology overlay. More progressive users of technology rely on a root cause analysis  
559 (“RCA”) process which is used to examine the reasons for fallout problems and to seek  
560 ways to improve system flow through once a problem has been identified. It is not clear,  
561 based on Qwest’s cost studies, testimony, and data request responses whether Qwest has  
562 an effective RCA process in place. In fact, based on Staff Request 01-033 in the New  
563 Mexico proceeding Qwest admits that there is no specific threshold that triggers system  
564 enhancements. This lack of employing forward-looking concepts and applying those  
565 concepts within the NRC STUDY is yet another deficiency in the model making the rates  
566 generated by the NRC STUDY suspect.

567

568 **Q. HAS STAFF MADE ADJUSTMENTS TO THE QWEST’S NRC STUDY TO**  
569 **REFLECT A 2% FALLOUT?**

570 A. No. Even though Qwest incorporates fallout factors of anywhere from 5% to 40% or  
571 higher – factors that are clearly out of line with TELRIC standards, and the overstatement  
572 of these probabilities results in the assumption that tasks are performed more often  
573 manually than mechanically (a much more costly process), Staff is unable to make this  
574 adjustment to the NRC STUDY. I have found that adjusting fallout within the Qwest  
575 model – due to the manner in which it is designed – is nearly impossible.  
576 I have identified a serious flaw in the Qwest NRC model in that adjusting these factors to  
577 reflect TELRIC standards is an extremely cumbersome manual process which if

578 attempted may introduce errors into the model. This is because in order to adjust these  
579 factors in Qwest's model the user must adjust each of the approximately 150 factors  
580 which may be applied separately, for each of the 244 NRC elements. Adjusting the  
581 model would therefore involve changing tens of thousands of individual cells located at  
582 different locations throughout the model. This process would take days, and, as noted,  
583 making these thousands of adjustments manually would introduce an unnecessary  
584 element of error into the adjusted model.

585 This flaw in the Qwest model is not present in other models I have reviewed. The NRC  
586 models of other ILECs I have reviewed around the country (Verizon's wholesale  
587 nonrecurring cost model for example) are extremely user friendly, providing a matrix of  
588 NRC-related tasks and their associated occurrence factors on a separate worksheet within  
589 the workbook model. This allows for the user to adjust those factors in a matter of hours  
590 rather than days, because copy/paste techniques can be used, due to the central location  
591 of the cells, with a high degree of accuracy.

592 The inability to adjust these critical input factors represents yet another flaw to the  
593 model, and the fact that these factors can not be adjusted reflects the conservative nature  
594 of Staff's resulting proposed nonrecurring rates.

595

596 **THE ANTI-COMPETITIVE NATURE OF QWEST'S NRC STUDY**

597

598 **Q. CAN YOU DESCRIBE THE IMPACT ON COMPETITION IN SOUTH DAKOTA**  
599 **OF THE COMMISSION ADOPTING THE NONRECURRING RATES**  
600 **PROPOSED BY QWEST IN THIS PROCEEDING?**

601 A. Nonrecurring costs (“NRCs”) are associated with the activities required in the initiation  
602 and provisioning of wholesale services, interconnection, or unbundled network elements.  
603 NRCs are incurred by CLECs when they order a service from, interconnect with, or  
604 purchase UNEs from an ILEC. Because NRCs are nonrecurring, by definition, these are  
605 one-time, up front costs that must be paid before the CLEC is allowed to provide service.  
606 The total costs associated with the tasks required in the provisioning of the UNE  
607 comprise the NRC for the UNE. If these costs are biased, based on inefficient estimates,  
608 or overstated in any other way, as are Qwest’s proposed nonrecurring costs, carriers not  
609 only pay an amount sufficient for Qwest to recover its costs, they pay an additional fee to  
610 Qwest. Because nonrecurring rates are paid up front, before the CLEC can begin  
611 providing service and recovering its costs, this fee can be thought of as a market entry  
612 fee, to which Qwest is not subject.

613

614 **Q. WHAT ARE THE COMPETITIVE RAMIFICATIONS OF THIS MARKET-**  
615 **ENTRY FEE?**

616 A. Obviously, CLECs who would have to pay in excess of TELRIC rates would have a more  
617 difficult time (from a financial perspective) entering the market and building a broad  
618 customer base than if rates were in line with TELRIC pricing principles. Additionally, to  
619 the extent that CLECs are subject to charges to which Qwest is not, Qwest would have an  
620 additional competitive advantage (in addition to being the dominant carrier) over CLECs  
621 making entry into the market less likely.

622 By adopting the adjusted NRC rates as proposed by the Staff in this proceeding, the  
623 Commission can mitigate the anti-competitive impact of these up front fees and increase  
624 the likelihood that South Dakota consumers will benefit from sustainable competition in  
625 South Dakota.

626

627 **CONCLUSION**

628

629 **Q. PLEASE SUMMARIZE YOUR TESTIMONY AND PROVIDE YOUR**  
630 **RECOMMENDATIONS.**

631 A. The Qwest NRC study suffers from many deficiencies with respect to the inputs used by  
632 Qwest. These deficiencies result in NRC rates that are overstated and inconsistent with  
633 FCC pricing principles. I therefore recommend that the Commission reject Qwest's  
634 proposed NRC rates, and instead, adopt the rates proposed and supported by Mr.  
635 Morrison.

636 I further recommend that the Commission order Qwest to conduct time and motion  
637 studies, in concert with the parties to this case. The results of these properly conducted  
638 studies would be used as inputs into the NRC STUDY in order to set permanent rates for  
639 Qwest in South Dakota.

640

641 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

642 A. Yes

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JUN 13 2003

**SOUTH DAKOTA PUBLIC  
UTILITIES COMMISSION**

Attachment MLS\_1



**EXHIBIT RHB-4 TO THE DIRECT TESTIMONY  
OF ROBERT H. BRIGHAM**

**SUPPORTING DOCUMENTATION FOR  
QWEST'S NONRECURRING COST STUDY\***

**\* Qwest's Nonrecurring Cost Study (Study #7222) and Nonrecurring Cost Model ("ENRC") are contained in Exhibits RHB-2 and RHB-3, respectively.**

**NONRECURRING ELEMENTS  
NORTH DAKOTA**

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# TAB 1

The purpose of this binder is to support the Nonrecurring Cost Studies for Unbundled Network Elements.

The binder is divided into segments as indicated by the header titles on the table of contents page.

**Glossary of Acronyms** is a list of all acronyms including the definition of each acronym identified within the supporting documents.

**Work Group Descriptions, Task Times, and Probabilities** contains a description of the work group responsibilities within each tab. Each tab contains the supporting documentation that includes detail of the work activities, times and probabilities for each group for each element.

**TAB 2**

## Glossary of Acronyms

<b><u>ACRONYM</u></b>	<b><u>DEFINITION</u></b>
ACNA	Access Customer Name Abbreviation
ACTL	Access Carrier Terminal Location
AP/SAC POINT	Access Point/Serving Area Connection
APP	Automated Provisioning Platform
ARMAR	Automatic RMA (Request for Manual Assistance) Resolution
ASR	Access Service Request
ATM	Asynchronous Transfer Mode
BAN	Billing Account Number
BHM	Busy Hour Minutes
BOSS/CARS	Billing & Order Support System/Customer Account Retrieval System
CCSAC	Common Channel Signaling Access Capabilities
CCT-D	Cust. Comm. Tech.-Design
CCT-I	Customer Communication Technician-Implementor
CD	Circuit Detail
CDOC	CI Prep Document (Central Office version of the WORD (Work Order Record Detail) document)
CFA	Connecting Facilities Arrangement
CFA	Carrier Facilities Assignment
CIC	Circuit Identification Code
CLEC	Competitive Local Exchange Carrier
CLLI	Common Language Location Identifier
CLO	Circuit Layout Order
CO	Central Office
CORAC	Central Office Resource Allocation Center
COT	Central Office Technician
CP	Communications Processor
CPD	Common Planning Document
CRON	Automated Order Load in WFA-DI (Work Force Administration - Dispatch In)
CRS	Circuit Reset Testing
CSPEC	Common Systems Planning & Engineering Center
CSR	Customer Service Record
CTC	Customer Transfer Charge
CWL	Circuit Work Location (each Central Office location involved on the order)
CXR	Carrier or Call Transfer
CXRD	Identifies frame locations for carrier systems. Is a means to add restrictions or update carrier records.
CXRF	Displays framing locations for a carrier facility.

## Glossary of Acronyms

<u>ACRONYM</u>	<u>DEFINITION</u>
CXRH	Displays header portion of carrier system records.
CXRS	Displays vacancies or individual circuits working on each channel slot of a specific carrier.
DA/OPR	Directory Assistance/Operator Services
DACS-EDSX	Digital Access & Cross Connect System
DD	Due Date Critical Date
DIP	Dedicated Inside Plant
DITSC	An Installation or Trouble Work Request screen in WFA-DI (Work Force Administration - Dispatch In)
DLR	Design Layout Record
DOSOI	Service Order Installation screen in WFA-DO (Work Force Administration - Dispatch Out)
DRI	Design Related Information
DS I&M Technician	Designed Services Installation and Maintenance Technician
DSX	Digital Signal Cross Connect
DSX-1	Digital Signal Level 1 Cross Connect
DSX-3	Digital Signal Level 3 Cross Connect
DTT	Direct Trunk Transport
DVA	Designed, Verified, and Assigned Critical Date
EAS	Extended Area Service
EF	Entrance Facility
EPOC	Engineering Point of Contact
EXACT	Exchange Access Carrier Tracking
FACS	Facility Assignment and Control System
FCD	Frame Continuity Date
FEYXA	Displays the # of carrier systems in-effect, pending and planned. Used to: 1) add new carrier groups. 2) remove carrier allocation groups. 3) add or remove designs from an allocation group. 4) update percentage of planned adds.
FID	Field Identifier Code
FOC	Firm Order Confirmation
FRS	Frame Relay Service
FT	Flow through
GCNOTE	A means to record pertinent notes pertaining to a particular design.
GCOCCA	Allows user to perform initial logging of pending circuit orders, canceling or deleting existing orders as well as the subsequent supplementing, correcting and rescheduling of orders. This screen is designated for Exchange Access use.
GCOCMA	Generic Order Control Message Access
GOC	Generic Order Control
HDSL	Hi-Bit Rate Digital Subscriber Line
I&M	Installation and Maintenance field forces
LABS	Integrated Access Billing System



## Glossary of Acronyms

### ACRONYM

### DEFINITION

ICACI	Access Service Request Additional Circuit Information Screen
ICCA2	Access Service Request Circuit Administration Center Response Screen
ICDF	Interconnector Distributing Frame
ICNTS	Access Service Request Notes Screen
ICO	Independent Company
ICORD	Access Service Request Order Screen
ICS	Internal Communications Services
IMA	Interconnect Mediated Access
IOF	Inter Office Facilities
ISC	Interconnect Service Center
IXC	Interexchange Carrier
IWS	Intellegent Work Station
LAN	Local Area Network
LFACS	Loop Facilities Assignment and Control
LIS	Local Interconnection Service
LNO	Local Network Operation
LOA	Letter of Authorization
LOOP2	This is a screen to record the outside facilities i.e., ca, pr for DSO orders only. The information is then transferred over to the by the system.
LPADM	Records the addresses and contact names & numbers for each end of the circuit and then transferred over to be part of the des
LPC	Loop Provisioning Center
LRAC	Load Resource Administration Center
LSR	Local Service Request
LST	Line and Station Transfer
MDF	Main Distributing Frame
MUX	Multiplexer
NID	Network Interface Device
NPA	Number Planning Area
NSMC	Network Services Maintenance Center
NXX	First three characters of a seven digit telephone number
OCO	Overall Control Office
OPS/INE	Operations Processing System/Intelligent Network Element
OSP	Other Service Provider
OSSCN	Circuit Notes screen in WFA-C (Work Force Administration - Control)
OSSCWL	Circuit Work Location screen in WFA-C (Work Force Administration - Control)
OSSLOG	Work Request Log screen in WFA-C (Work Force Administration - Control)

## Glossary of Acronyms

<u>ACRONYM</u>	<u>DEFINITION</u>
OSSLST	Order List screen in WFA-C (Work Force Administration - Control)
OSSOI	Order installation screen in WFA-C (Work Force Administration - Control)
OWLDOC	WORD (Work Order Record Detail) Document screen in WFA-C (Work Force Administration - Control)
PAWS	Position Analysis Workstation
PCFLOW	Traces the history of a given work item.
PCLIST	This is a work management list for a given work position.
PDAC	Planning Design Access Code
POA	Proof of Agency
POTS	Plain Old Telephone Service
PTD	Plant Test Date
RCICIC	Compliment screen allows user to create, update, remove or display a TCIC compliment.
RCICIT	This activity screen allows user to post or unpost TCICs to one or more message trunks.
RDLOC	Venue for locating addresses, locations and/or specific locations within a Central Office by CLLI cod
RID	Record Issue Date
RMA	Request for Manual Assistance
RTAD	This function implemented on the circuit detail screen brings back performance monitoring (testing) information on the desig
RTT	This is the Referral Tracking Tool that is used as communication between designers, testers and capacity provisioning to mon held orders in need of equipment, facilities, job site visits, etc.
SCCX/SCC2R	SCCX is where planned carrier systems are created, maintained and removed. SCC2R is a continuation of this screen.
SCR	Screeener Critical Date
SDC	Service Delivery Coordinator
SIG	Signal Interval Guide
SOA	Service Order Administrator
SOAC	Service Order Analysis and Control
SOP	Service Order Processor
TAG	Technical Advisory Group
TAS	Trunk Assignment System
TASASG	Trunk Assignment System Assignment Screen in Generic Trunk Assignment System
TASTGN	Trunk Assignment System Trunk Group Screen in Generic Trunk Assignment System
TAXI	Terminal Access for Interexchange Inquiry
TGMR/TRDB	Trunk Group Message Record/Trunking Record Database
TIRKS	Trunk Inventory Records Keeping System
TQ	Translations Questionnaire
TRDB	Trunking Record Database
TSC	Two Six Code (Trunk Group - 2 alpha, six numeric)
TUF/LABS	Translator of USOCs (Universal Service Order Codes) and FIDs (Field Identifier Codes)/Integrated Access Billing System

## Glossary of Acronyms

<u>ACRONYM</u>	<u>DEFINITION</u>
UDC	Universal Digital Channel
UDIT	Unbundled Dedicated Interoffice Transport
USOC	Universal Service Order Codes
USW	U S WEST
WA	Work Authorization
WFA	Work Force Administration
WFA-C	Work Force Administration - Control Module
WFA-DI	Work Force Administration - Dispatch In Module
WFA-DO	Work Force Administration - Dispatch Out Module
WFM	Work Flow Manager
WORD	Work Order Record Detail
WORD Document	Work Order Record Detail Document
XBOX	Is the place where two sets of pairs are connected to provide continuity to the circuit. i.e., cable pairs come from the Central C and are connected to a different set of cable pairs to the customer.
ZRGRP	Trunk group record.

**TAB 3**

# INTERCONNECT SERVICE CENTER

Serves as the primary order provisioning contact for Competitive Local Exchange Carrier (CLEC) customers who purchase unbundled network elements products and services (i.e. Number Portability, Unbundled Loop, Unbundled Lineside Port, Resale) from Qwest.

The center provides end-to-end order coordination from request through order completion and serves as the primary liaison for the customer for all downstream organizations.

## TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

Update March, 2001 to reflect full IMA flow through (95%).

**Process, Times & Probabilities for POTS to UNE-C**

<u>Task Description 1st Line (mechanized)</u>	<u>Time in Min</u>	<u>Probability</u>	<u>Wage Scale</u>
1) If LSR errors in the SOP or fails flow through edits the LSR is screened and routed to an order writer			
Screen and route	5	0.05	OS scale 7
2) Order Writer accesses LSR, manually enters order in SOP and faxes an FOC (Firm Order Confirmation) to the reseller. Logs minimal data in CRM.			
Type Change Of Service Provider 1st Line	10	0.05	OS scale 7
<u>Task Description Additional Line (mechanized)</u>	<u>Time in Min</u>	<u>Probability</u>	<u>Wage Scale</u>
3) Order Writer manually enters order in SOP and faxes an FOC (Firm Order Confirmation) to the reseller.			
Type Change Of Service Provider Adl Line	3	0.05	OS scale 7
<u>Task Description 1st Line (manual)</u>	<u>Time in Min</u>	<u>Probability</u>	<u>Wage Scale</u>
1) Pre order, Outsourcer receives request for CSR reseller, accesses CSR via BOSS/CARS database, gathers records & faxes to reseller. (CSRM)			
Receive request & send CSR	3	1	OS scale 7
2) Order Screener receives firm LSR (via fax), screens for fatal rejects, faxes LSR to appropriate center for logging and typing.			
Receive & Screen LSR	5	1	OS scale 7
4) Order Writer (using LSR), manually enters order in SOP and sends a FOC (Firm Order Confirmation) to the reseller. Logs minimal data in CRM			
Type Change Of Service Provider 1st Line	10	1	SOA scale 7
<u>Task Description Additional Additional Line (manual)</u>	<u>Time in Min</u>	<u>Probability</u>	<u>Wage Scale</u>
Order Writer (using LSR), manually enters order in SOP and sends a FOC (Firm Order Confirmation) to the reseller. Logs minimal data in CRM.			
Type Change Of Service Provider Adl Line	3	1	SOA scale 7
nt codes - OS scale 7 6623 12300			

PROCESS AND TIMES FOR TRANSFERRING EXISTING PRIVATE LINE CUSTOMERS.

Private Line products include: DS0, DS1, DS3, OCn, Integrated T1

Prepared By Sami Hooper 303 965-3711

Design times from Kathy Platts

Jun-00

**Task Description 1st Circuit Conversion**      **Time in Min**      **Probability**      **Labor Group**

**SERVICE DELIVERY CENTER**

Each circuit received and typed separately no additional circuit efficiency, no IMA efficiency all orders manually typed

1) Service Order Administrator receives firm LSR (via fax), screens for fatal rejects, and logs LSR.

Receive & Screen LSR      5      1      ISC

2) Service Delivery Coordinator (using LSR), verifies address and NC NCI combination, Manually enters a disconnect(IABS) and New connect order in SOP (Service Order Processor).

Type Change of Service Provider      20      1      IWSC

3) Service Delivery Coordinator faxes a FOC (Firm Order Confirmation) to the co-provider and logs CRM

Fax FOC to co-provider      2      1      IWSC

4) Service Delivery Coordinator accesses order in SOP, corrects all service order errors and completes order.

Correct & Complete Order in SOPS      5      1      IWSC 02

DES

WSC

# TAB 4



**Subject: Re: [Fwd: Collocation Transitions]**

**Date:** Thu, 30 May 2002 14:33:50 -0500

**From:** Deni Toye <dtoye@qwest.com>

**Organization:** Qwest Corporation

**To:** Daniel Deffley <ddeffle@qwest.com>

Yes, if it is designed service, the Implementor would be the one to do the documentation and completion of the WFA order.

Deni

Daniel Deffley wrote:

> D,  
> I'm ok with that for the collo study. That one is done. Now I'm referring to a  
> Private Line to Unbundled Element conversions. Its mostly work in the ISC to  
> change billing but was told at one time that the Design Center will have a small  
> amount of work to do on these orders. Again, verifying which tech does this work.  
> I currently show a designer but think it should be the implementor.

> Thanks,

> DD

>

> Deni Toye wrote:

>

>> Hi Dan,

>> This work is done by the Implementor, not the Designer. This would be when one

>> CLEC buys another CLEC collocation and the Billing name needs to change to the

>> New CLEC. This should all be flow through for the designer.

>> Mahalo,

>> Deni

>>

>> Daniel Deffley wrote:

>>

>>> Deni,

>>> Here is the memo you sent before. Just checking to see if this applies

>>> for Private Line to Unbundled Element conversions. Currently, I show

>>> this work being performed by a Designer for conversions rather than an

>>> Implementor.

>>> Thanks,

>>> DD

>>>

>>>

>>>

>>> Subject: Re: Collocation Transitions

>>> Date: Mon, 08 Apr 2002 13:22:27 -0500

>>> From: Deni Toye <dtoye@qwest.com>

>>> Organization: Qwest Corporation

>>> To: Daniel Deffley <ddeffle@qwest.com>

>>> References: <3CB1B9E2.EBC92A48@qwest.com> <3CB1CA8A.A1F71662@qwest.com>

>>>

>>> The total time would be 5 min. If it needs to be broken down, the screening

>>> would be 2 min and the closeout would be 3 min.

>>> Deni

>>>

>>> Daniel Deffley wrote:

>>>

>>>> Deni,

>>>> Yes, please add the time per step or summarize the total time to perform

>>>> these activities.

>>>> Thanks,

>>>> Dan D.

>>>>

>>>> Deni Toye wrote:

>>>>

>>>>> Hi Dan,

>>>>> When one company buys another companies collocations, these are the

>>>>> steps that the Implementor will need to do:

>>>>> 1. Screen the order

>>>>> 2. Close out activities including CLEC contact and close out of WFA/C

>>>>> screens with respective field completion.

>>>>>

>>>>> Are you needing more verbiage?

>>>>> Thanks,

> > > > Deni  
> > > >  
> > > > --  
> > > > - Confidential Use Only -  
> > > > Disclose and Distribute Only to Qwest Employees Having a Need to Know.  
> > > > Disclosure outside of Qwest is prohibited without authorization.

> > >  
> > > --  
> > > - Confidential Use Only -  
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> > > Disclosure outside of Qwest is prohibited without authorization.

> > > -----

> > > Deni Toye <dtoye@qwest.com>

> > > Deni Toye  
> > > <dtoye@qwest.com>  
> > > Pager: 800-946-4646 Pin 148-1534  
> > > Fax: 515-323-0181  
> > > Work: 515-286-6440

> > > Additional Information:

> > > Last Name Toye

> > > First Name Deni

> > > Version 2.1

> > >  
> > > --  
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> > > Disclosure outside of Qwest is prohibited without authorization.

--  
- Confidential Use Only -  
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Disclosure outside of Qwest is prohibited without authorization.

---

Deni Toye <dtoye@qwest.com>

# TAB 5

**Subject: Resale Frame Relay Account Consultant info**

**Date: Fri, 9 Mar 2001 08:48:20 -0600**

**From: mrushen@uswest.com**

**To: ddeffle@qwest.com**

Hello-

Here is the information I promised you yesterday. Let me know if you have any questions.

Thanks!

<<Resale Cost.doc>>

Marilyn Rushenberg  
Account Consultant  
612-664-3438 (voice)  
612-680-9515 (pager)  
612-664-4776 (fax)  
<<...OLE\_Obj...>>

March 9, 2001

Hello-

Here is the information you were requesting yesterday as it regards Account Consultant action for resale frame relay orders.

The following is the breakdown of the general activity: Input order into FRSR (Frame Relay Service)

This activity includes:

1. Verifying or building customer name and address into !SYS database
2. Verifying that all pertinent information is provided on LSR including (but not necessarily limited to):

- Type of service required (access link type etc)
- Billing information
- Billing contact information
- Contract information
- Service address
- Wiring instructions
- Site contact information
- Repair contact information
- PVC information
- Due date

3. Build the FRSR applet and send forward to DAOS (order specialists)

Also, the average amount of time for these activities, as we discussed yesterday, is 12 minutes, in my opinion, assuming that all pertinent information is on the LSR.

Call me with questions. Thanks!

Marilyn Rushenberg  
Account Consultant  
612-664-3438 (voice) ~  
612-680-9515 (pager)  
612-664-4776 (fax)  
<<...OLE\_Obj...>>

**NOTICE**

**The information contained herein is confidential and proprietary and should not be disclosed to unauthorized persons. It is meant for use by authorized representatives of Qwest, only.**

Subject: change in numbers  
Date: Fri, 9 Mar 2001 11:37:34 -0600  
From: tbeager@uswest.com  
To: ddeffle@qwest.com

Customer service delivery (Data Applications Order Specialist)

Verify FRSR (Frame relay service)	10
Address Verification	5
Send to EXACT/Assign order	5
Send information to IABS and updates ORACLE	3
Issue IABS order	10
Complete IABS order and send to billing	10

Here is an explanation for the time frames surrounding what the DAOs due.

Verify FRSR (frame relay service)

Verify that all of the information on the FRSR is complete and accurate:

Verify disconnect for pending order

Verify accurate circuit information

Calculate termination if necessary

Verify BAN

Verify customer name

Verify NC code for type of circuit

Verify MCN

Verify ACNA

Verify billing and contract information

Address Verification

Verify CFA in facility check

Verify address in facility check

Verify LSO in facility check

Issue IABS order

Verification of order

Manual entry of remarks

Manual issuance of "R" orders

Disconnects may require EBD

Disconnects require "fetching" the circuit and changing all action codes to 0

After issuing the order go back to FRSR to update translation date

Complete IABS order

When on order can not complete automatically, investigation as to why, fix the problem, and complete the order.

Dan anytime we are doing verification it can result in having to fix a problem before proceeding. If you have any questions please give me a call.

Thanks,  
Terri  
612 664-3469

**NOTICE**

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## **SERVICE DELIVERY COORDINATOR**

Wholesale markets – Service Delivery serve as the primary order provisioning contact for CLECs, Interexchange Carriers and Wireless customers who purchase complex wholesale and retail products and services (i.e., Private Line, Feature Group, LIS Trunking, Centrex Resale, Number Portability) from Qwest.

The center teams provide end-to-end order coordination from request through order completion and serve as the primary liaison for the customer for all downstream organizations.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

Subject: Cost Study  
Date: Tue, 21 May 2002 10:37:36 -0600  
From: "Cindy Kalakis" <ckalaki@qwest.com>  
To: ddeffle@uswest.com  
CC: "Terri McQuiston" <tporter@notes.uswc.uswest.com>  
 , "Linda Kae Olsen" <lxolsen@notes.uswc.uswest.com>  
 , "Ronda Bergstedt" <rbergst@notes.uswc.uswest.com>  
 , "Nancy Chapman" <nljohns@notes.uswc.uswest.com>

Dan:

Attached is the cost study spreadsheets for Private Line, Switched Access, LIS and UDIT.

I did a comparison on like functions and it seems we are in synch. There are some differences with the SHNS-SST because of the complexity of the product but I think we are either the same or justifiably different where appropriate between all the products.

If you need to get us all together again to discuss, let me know, I'll be happy to set up a meeting, or you can talk to the Product Process Specialist for each product if you have questions.

Thanks for your patience!

Cindy

(See attached file: SDC TIMES 2002-Summary-all prod.xls)

---

SDC TIMES 2002-Summary-all prod.xls      Name: SDC TIMES 2002-Summary-all prod.xls  
Type: Microsoft Excel Worksheet  
(application/vnd.ms-excel)  
Encoding: base64



**TAB 6**

INSTALL			Time Estimates				Notes
Item #	Item	Work Activity Description	FACILITY	TRUNKS		Augment Change	
			ENTRANCE FACILITY	INSTALL FIRST	INSTALL EA ADDL		
1	Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list	1 min.	1 min.	na	1 min	This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT. *90% of ASRs are mechanical
1a	Receive ASR via FAX*	Input ASR into EXACT Manually	10 min	10 min	na	10 min	This is the time that it would take the SDC to manually input the information on all the EXACT screens. *10% of ASRs are manually faxed.
2	Validate ASR in EXACT	Check for the accuracy of the ASR fields and make sure all information is present	10 min	10 min		10 min	Entries are made to add order number, circuit ID and intervals to the service order. The address is validated for accuracy. The Qwest EXACT screens are populated in this step.
3	Validate ACTL in TIRKS	Check RDLOC screen to validate who owns the ACTL.	2 minutes	2 minutes	na	na	
4	Verify LOA*	Check to see if LOA is necessary. If LOA is needed is it on file or does the SDC need to request a new one.	1 min	1 min	na	na	*65% of the time
5	Assign new TSC	In TRDB assign TSC if request is for a new trunk group.	4 min	4 min	na	na	50% of the time
6	Verify TAXI	Make sure the TSC and circuit ID passed by the customer is the same on our TAXI records. Verify the BAN provided by the customer is accurate and if not accurate locate the correct BAN.	2 minutes	2 minutes	na	2 min	Not required on new installations - only change orders.
7	Credit Info/Security	Call billing SDC to verify credit check has been completed and security deposit received if required.	5 minutes	5 minutes	na	na	Only required on the first install in the LATA.
7a	Validate Contract Rates	Check the IABS TICR table/contract to ensure rates are loaded for LIS USOCs in the customer's contract.		3	3	3	Done 100% of the time.
8	Verify TQ	Make sure the TQ is required for type of service and that all required entries are present.	na	5 minutes	na	na	For LIS, verify that the NPA/NXXs listed on ICTQA are local to the SECLOC or that they have the type of arrangement that allows crossing LCA boundaries.

9	Intra Company Calls	Handling calls from the IXC and from within the company regarding the ASR.	13 min	13 min	na	13 min	
10	Order Distribution - DS1 facility and/or EF						
10A	EXACT/TUF/IABS	Ready order from EXACT TO TUF into the order format in IABS.	1 min			1 min	This is a manual ready command by the SDC but the translations to IABS is a mechanical process within EXACT/TUF.
10B	Validate IABS Service order manually calculate charges if the service is InterLCA Facility or other manually billed products (Tandem Exhaust, etc.).	Validate USOC suffixes for mileage and billing USOCS for circuit elements. CFA and HBAN. Check to make sure the service order is complete and accurate.	2 min.			2 min	
10C		Add additional mileage USOC and calculate rate using the intrastate tariffed rates (fixed and variable) for the mileage increment.	5 min			5 min	Applicable if the SPEC code of XLCAL1 or XLCAL2 is present or if in a state where tandem exhaust exists and other arrangements required. Contract amendment required. 3% of the ASRs.
10D	Distribute Order in IABS	Distributes order to billing system so billing SDC's can validate charges, etc.	1 min			1 min	
11	Validate 3 successes in SOAC TIRKS interface	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS. If order has an error, it must be resolved in the appropriate service order processor before it will flow through all necessary systems.	1 min			1 min	
12	Order Distribution Trunk						
12A	EXACT/TUF/IABS	Ready order from EXACT to TUF into the order format in IABS		1 min	na	1 min	
12B	Validate IABS Service order	Validate OCL, and delete TSC's if multiple were fetched that do not pertain to this order. Verify CFA and HBAN. Check to make sure the service order is complete and accurate.		2 min		2 min	
12C	Distribute Order in IABS	Distributes order to billing system so billing SDC's can validate charges, etc.		1 min	na	1 min	

13	PC List ASR	PC List ASR to Tirks to mechanically build the template for the word document.		1 min	na	1 min		
14	FOC*						*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *Manual FOC is 10%	
14A	FOC Manual	Manually confirm the ASR, print the screen and fax or email to the customer. Includes the FAX of the DLR.	3 min	3 min	na	3 min		
14B	FOC Electronically Service Order Completion	Confirm ASR in EXACT, make sure the customers DRC code is present so the DLR will print to the customers location.	1 min	1 min	na	1 min		
15	Check WFA	Check WFA order for completion date and any pertinent notes or missed function codes	3 min	3 min	na	3 min		
16	Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.	5 min	5 min		5 min	Validate required FIDs are present.	
17	Complete IABS Service Order	Type the correct codes to complete the order in IABS and process.	1 min	1 min		1 min		
18	Complete EXACT	Type correct information into EXACT and complete the ASR.	1 min	1 min	na	1 min		
19	Note EXACT	Make any applicable notes in EXACT	1 min	1 min	na	2 min		
<b>DISCONNECT</b>			<b>Time Estimates</b>					
			<b>TRUNKS</b>					
<b>Item #</b>	<b>Item</b>	<b>Work Activity Description</b>	<b>ENTRANCE FACILITY</b>	<b>DISC FIRST</b>	<b>DISC EA ADDL</b>	<b>Change</b>	<b>Notes</b>	
1	Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list	1 min.	1 min.	na	1 min	This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT. *90% of ASRs are mechanical	

1a	Receive ASR via FAX*	Input ASR into EXACT Manually	10 min	10 min	na	10 min	This is the time that it would take the SDC to manually input the information on all the EXACT screens. *10% of ASRs are manually faxed.
2	Validate ASR in EXACT	Check for the accuracy of the ASR fields and make sure all information is present	10 min	10 min		10 min	Entries are made to add order number, circuit ID and intervals to the service order. The address is validated for accuracy. The Qwest EXACT screens are populated in this step.
3	Verify TAXI	Make sure the TSC and circuit ID passed by the customer is the same on our TAXI records. Verify the BAN provided by the customer is accurate and if not accurate locate the correct BAN.	2 minutes	2 minutes	na	2 min	Not required on new installations - only change orders.
4	Verify TQ	Make sure the TQ is required for type of service and that all required entries are present.	na	5 minutes	na	na	TQ required on complete disconnect of group to ensure that traffic is re-routed if appropriate. Not required on partial disconnect.
5	Intra Company Calls	Handling calls from the IXC and from within the company regarding the ASR.	3 min	3 min	na	3 min	
6	Order Distribution DS1 and/or EF						
6A	EXACT/TUF/IABS	Ready order from EXACT TO TUF into the order format in IABS.	1 min	1 min	na	1 min	This is a mechanical process within EXACT.
6B	Validate IABS Service order	Validate CFA and HBAN. Check to make sure the service order is complete and accurate.	2 min.			2 min	
6C	Distribute Order in IABS	Distributes order to billing system so billing SDC's can validate charges, etc.	1 min			1 min	
6D	Validate 3 successes in SOAC TIRKS interface	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS. If order has an error, it must be resolved in the appropriate service order processor before it will flow through all necessary systems.	1 min			1 min	
7	Order Distribution Trunk						
7A	TUF/IABS	Ready order from EXACT to TUF into the order format in IABS		1 min		1 min	

7B	Validate IABS Service order	Validate OCL, and delete TSC's if multiple were fetched that do not pertain to this order. Verify CFA and HBAN. Check to make sure the service order is complete and accurate.		2 min		2 min	
7C	Distribute Order in IABS	Distributes order to billing system so billing SDC's can validate charges, etc.		1 min		1 min	
8	PC List ASR	PC List ASR to Tirks to mechanically build the template for the word document.	1 min	1 min	na	1 min	
9	FOC*						*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *Manual FOC is 10%
9A	FOC Manual	Manually confirm the ASR, print the screen and fax or email to the customer. Includes the FAX of the DLR.	3 min	3 min	na	3 min	
9B	FOC Electronically	Confirm ASR in EXACT, make sure the customers DRC code is present so the DLR will print to the customers location.	1 min	1 min	na	1 min	
	Service Order Completion						
10	Check WFA	Check WFA order for completion date and any pertinent notes or missed function codes	3 min	3 min	na	3 min	
11	Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.	5 min	5 min		5 min	Validate required FIDs are present.
12	Complete IABS Service Order	Type the correct codes to complete the order in IABS and process.	1 min	1 min		1 min	
13	Complete EXACT	Type correct information into EXACT and complete the ASR.	1 min	1 min	na	1 min	
14	Note EXACT	Make any applicable notes in EXACT	1 min	1 min	na	1 min	

**TAB 7**

## **DESIGN**

- Overall responsibility for RID (Record Issue Date) completion.
- Upholding Qwest design standards
- Assigns interoffice facilities and equipment at the circuit level
- Prepares and distributes WORD (Work Order Record Detail) including DLR (Design Layout Record).
- Ensures that TIRKS (Trunks Integrated Record Keeping System) designs meet the customer expectations.
- Escalates as necessary to ensure pre-RID dates are met.
- Advises Qwest sales forces or order originators of jeopardies as they are discovered.
- Maintains TIRKS database integrity by making design changes as they occur (i.e. cable pair changes, etc.)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.



**Subject: Switched Design Costing**

**Date: Mon, 22 Jan 2001 13:15:27 -0600**

**From: Lori Burchett <leckard@qwest.com>**

**Organization: Qwest Communications International, Inc.**

**To: "Deffley, Daniel" <ddeffle@uswest.com>**

**CC: "Mirian, Marlene" <mmirian@uswest.com>**

Dan,

I have totally reformatted the data. I was not comfortable messing with your document so I did my own, of which you can take and place in yours.

I really tried to streamline it. Let me know what you think before I copy it to those it pertains to.

Marlene is going to use my same format also.

Lori

## Design-Switched

Includes data for Feature Group, LIS, Wireless Type II, CCSAC, Link trunks and associated Facilities.

\* Switched Service orders include Trunks and Facilities on one ASR

Note: 1. Times are estimates. Percentages are for manual.

2. Even though a step is mechanical it may require manual verification. Those times are indicated in ( ).

3. Time spent on supplements, redesigns or problems on an order are not indicated.

SOURCE: LORI BURCHET - STAFF MANAGER DESIGN

1/22/01

### Adds/Rearranges

Task	Trunk (Per 24 trunks)	Facility (Per 1 facility)	% of Manual Probability	
			Trunks	Facility
<b>Order Handling/Screening.</b> (Per ASR) A. Access WFM B. Check Exact C. Assign and Log	10 (based on 1 ASR, could be more than 1 facility and 24 trunks)	included with trunks	100%	100%
<b>Log/Verify Facility</b> A. Bank Codes B. PDAC C. Check Facilities D. Design E. FEYXA F. SCCNR G. GCOCCA	NA	45 (25 working it mechanically)	NA	5%
<b>Build/Validate DRI &amp; WA</b> A. Populate DRI B. Check CFA on DRI against EXACT C. Populate WA	10 (4 to validate)	6 (3 to validate)	5%	5%
<b>Build/Verify CD</b> A. Locate Spare facilities and switch equipment B. Build & Post CD C. Perform RTAD	15 (3 to validate)	15 (5 to validate)	5%	20%
<b>Distribute Documents</b> A. Verify/populate CXRH B. Distribute/Verify distributed C. Note Exact	2	4	100%	100%
<b>TAS</b> A. Populate/Verify TASTGN, TASASG, RC1CTT, RC1CIC & ZRGRP	15	NA	75%	NA
<b>PCList Trunks- after facility has been distributed. C-Mate then should mechanically populate GCOCCA, SCCNR &amp; SCCNR2. DRI WA, CD. If successful it will return with a "Remove Hold" message on the WA.</b>	2	NA	100%	NA

## Disconnects

Task	Trunk (Per 24 trunks)	Facility (Per 1 facility)	% of Manual Probability	
			Trunks	Facility
<b>Order Handling/Screening.</b> (Per ASR) A. Access WFM B. Check EXACT C. Assign and Log	10 (based on 1 ASR, could be more than 1 facility and 24 trunks)	included with trunks	100%	100%
<b>PCList Trunks</b> A. C-Mate should mechanically populate GCOOMA, SCCXR & SCCNRZ, WA, CD. If successful it will return with a "Remove field" message on the WA.	2	NA	100%	NA
<b>Log/Verify Facility</b> A. Determine facility name. B. Check CNRS C. SCCXR D. GCOCCA	NA	8 (3 working it mechanically)	NA	5%
<b>Build/Validate WA</b> A. Populate WA	5 (2 to validate)	5 (2 to validate)	5%	5%
<b>Build/Verify CD</b> A. Build/post/verify CD	10 (2 to validate)	3 (2 to validate)	5%	5%
<b>Distribute Documents</b> A. Distribute/Verify distributed B. Note EXACT	2	2	100%	100%

### Direct Trunk Transport Facility (DS1) times spread across trunk costs

Inward		Disconnect	
45 min @ 5%	= 2.25	8 min @ 5%	= .40
25 min @ 95%	= 23.75	3 min @ 95%	= 2.85
6 min @ 5%	= .30	5 min @ 5%	= .35
3 min @ 95%	= 2.85	2 min @ 95%	= 1.90
15 min @ 20%	= 3.00	3 min @ 5%	= .15
5 min @ 80%	= 4.00	2 min @ 95%	= 2.00
4 min @ 100%	= 4.00	2 min @ 100%	= 2.00
<b>Total</b>	<b>40.15 minutes</b>		<b>9.45 minutes</b>

MULTIPLEXING   DESIGN WORK ACTIVITY	COST ELEMENT		COST ELEMENT		COST ELEMENT		COST ELEMENT		
	UDIT (LIS)	DSO	%	DS1	%	DS1	%	DS3	%
		util low side	MANUAL PROB	util high side lbs	MANUAL PROB	low side of util 3/1 mux	MANUAL PROB	util high side lbs	MANUAL PROB
<u>INSTALL</u>									
ORDER HANDLING/SCREENING	5	0.20	5	0.20	2	0.20	5	0.20	
GOC ORDER LOG	6	0.20	6	0.20	2	0.20	6	0.20	
ENTER WA MASK	5	0.10	5	0.80	2	0.80	5	0.80	
PREP LOOP INPUT/DRI	10	0.20	16	0.75	2	0.75	16	0.75	
CIRCUIT DESIGN	20	0.10	30	1.00	5	1.00	30	1.00	
DISTRIBUTE WORD DOC	2	0.05	2	0.90	2	0.90	2	0.90	
<u>DISCONNECT</u>									
ORDER HANDLING/SCREENING	5	0.10	5	0.10	2	0.10	5	0.10	
GOC ORDER LOG	6	0.10	6	0.10	2	0.10	6	0.10	
ENTER WA MASK	5	0.10	5	0.10	2	0.10	5	0.10	
DISCONNECT CIRCUIT	5	0.10	5	0.10	2	0.10	5	0.10	
DISTRIBUTE WORD DOC	2	0.10	2	0.10	2	0.10	2	0.10	

**NOTE:**

The time estimates and probability percentages listed are forward-looking to year end 1999.

These work activities are required to process a service request that falls out of the TIRKS system for mechanized design.

These are average times. The times assume the technician will not encounter problems during the manual process necessary to process the service request.

UDIT DS3/DS1 multiplexing requires all orders worked at the same time. A total of 20 orders will be worked.

UDIT DS1/DS0 multiplexing high side and low side orders are worked separately, low side channels may be ordered at different times.

**SOURCE:**

KATHY PLATTS

DESIGN CENTER STAFF

1/89

**TAB 8**

## CENTRAL OFFICE

Responsible for service connection in the central office and associated testing and administrative functions. Places cross-connects (jumpers), performs cross-office testing, and provides support to field installation and control center for circuit testing as required.

### TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

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- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

DATE: 05-06-99

TO: Dan Deffley

FROM: Diane Kinkel  
Designed Services Staff Manager

SUBJECT: Interconnection, Unbundled Network Elements

A review of the work activities required for processing service orders for Unbundled Network Elements and Local Interconnection Service has been completed as of May 1999.

Work groups included for this review include:

Central Office Technician  
Load Resource Administration Center  
Installation and Maintenance Technician  
Customer Communication Technician - Implementor.

The attached sheets contain the work activities, work times, and probability of occurrence percentage required for the provisioning of Unbundled Loop Elements. A Process Description that details the work activities necessary to perform these work activities is also attached.

A group of Subject Matter Experts provided input to the data provided here. Their job titles include coach, Central Office Staff Manager, and, Designed Services Staff Managers, Designer, Central Office Technician, and Implementor. The persons providing input are recognized experts in regards to these processes by virtue of experience. The experience levels of the experts that provided input to this time study range from 5 to 20 years.

Key Assumptions:

- ◆ The times documented here are average times.
- ◆ They do not reflect problems encountered during the processing of the service order.
- ◆ They do not include supplements to the initial order.
- ◆ These estimates do not include any maintenance or repair time.
- ◆ This process is forward-looking to year-end 1999.

If you have any questions concerning the attached data, please call me on 303-896-1672.

Central Office Time Estimates for Switched Access Service  
Received from Diane Kinkell 6/98

Assumptions:

There is no Central Office work performed at the DSO level on trunks in Digital Switches. All work is software. This study assumes all digital switches. CO activities are for facility (Entrance Facility and or Direct Trunk Transport) orders.

Work is performed per central office. On average, CO activities occur in the serving office, one intermediate office 50% of the time, and the end office.

WORK ACTIVITIES	MINUTES
Install	
Analyze order	5
Complete Cross Connects	4
Complete WFA-DI Order	2
Complete Order with CCT-I	3
Total Time	14
Disconnect	
Analyze Order	5
(Entrance Facility) Disable Circuit	2
Remove Cross-Connects	2.3
Complete WFA-DI	2
Total Time	11.3



Central Office Technician Work Activities (New Connect Order)	DS1/DS3 Entrance Facility	DS1 Direct Trunk Transport
Analyze Order	5 minutes	5 minutes
Complete DSX Cross-connects	4 minutes	4 minutes
Complete WFA-DI order	2 minutes	2 minutes
Complete Order with CCT-I	3 minutes	3 minutes

Assume CO activity occurs in Serving Wirecenter and End Office  
 Assume an intermediate Office will require CO activity 50% of orders for DT.  
 NOTE: There is no Central Office work at the DS0 level on trunks in Digital Switches. All work is software.

Central Office Technician Work Activities (Disconnect Connect Order)	DS1/DS3 Entrance Facility	DS1 Direct Trunk Transport
Analyze Order	5 minutes	5 minutes
Disable Circuit	2 minutes	na
Remove Cross-connects	2.3 minutes	2.3 minutes
Complete WFA-DI order	2 minutes	2 minutes

CENTRAL OFFICE TECHNICIAN	
INSTALL	
<b>TWO POINT DS0 LDI1</b>	
1. Analyze Order (2 technicians)	5 min
2. Contact CCT-1 to work order (2 technicians)	3 min
3. Complete DS0 cross-connect (2 technicians)	4 min
4. Perform Line/Drop Testing (2 technicians)	8 min
5. Complete Conformance Testing (2 technicians)	15 min
6. Post work request complete in WFA-DI (2 technicians)	2 min
7. Complete work request with CCT-1 (2 technicians)	3 min
<b>TWO POINT DS1 LDI1</b>	
1. Analyze Order (2 technicians)	5 min
2. Contact CCT-1 to work order (2 technicians)	3 min
3. Complete DSX1 cross-connect (2 technicians)	4 min
4. Place Loopback Test Plug (1 technician)	2 min
5. Complete Conformance Testing (1 technician)	1 hour
6. Post work request complete in WFA-DI (2 technicians)	2 min
7. Complete work request with CCT-1 (2 technicians)	3 min
<b>TWO POINT DS3 LDI1</b>	
1. Analyze Order (2 technicians)	5 min
2. Contact CCT-1 to work order (2 technicians)	3 min
3. Complete DSX3 cross-connect (2 technicians)	4 min
4. Place Loopback Test Plug (1 technician)	2 min
5. Complete Conformance Testing (1 technician)	1 hour
6. Post work request complete in WFA-DI (2 technicians)	2 min
7. Complete work request with CCT-1 (2 technicians)	3 min
<b>M1-3-HIGH SIDE (1 OFFICE)</b>	
1. Analyze Order (1 technician)	5 min
2. Contact CCT-1 to work order (1 technician)	3 min
3. Complete DSX3 cross-connect (1 technician)	4 min
4. Place Loopback Test Plug (1 technician)	2 min
5. Complete Conformance Testing (1 technician)	5 min
6. Post work request complete in WFA-DI (1 technician)	2 min
7. Complete work request with CCT-1 (1 technician)	3 min
<b>M1-3-LOW SIDE (1 OFFICE)</b>	
1. Analyze Order (1 technician)-28 DS1s	5 min
2. Contact CCT-1 to work order (1 technician)	3 min
3. Complete DSX1 cross-connect (1 technician)-28 DS1s	4 min
4. Place Loopback Test Plug (1 technician)-28 DS1s	2 min
5. Complete Conformance Testing (1 technician)	15 min
6. Post work request complete in WFA-DI (1 technician)-28 DS1s	2 min
7. Complete work request with CCT-1 (1 technician)-28 DS1s	3 min
<b>M1-6-HIGH SIDE (1 OFFICE)</b>	
1. Analyze Order (1 technician)	5 min
2. Contact CCT-1 to work order (1 technician)	3 min
3. Complete DSX1 cross-connect (1 technician)	4 min
4. Place Loopback Test Plug (1 technician)	2 min
5. Complete Conformance Testing (1 technician)	5 min
6. Post work request complete in WFA-DI (1 technician)	2 min
7. Complete work request with CCT-1 (1 technician)	3 min
<b>M1-6-LOW SIDE (1 OFFICE)</b>	
1. Analyze Order (1 technician)-24 DS0s	5 min
2. Contact CCT-1 to work order (1 technician)	3 min
3. Complete DS0 cross-connect (1 technician)-24 DS0s	4 min
4. Complete Line/Drop testing (1 technician)-24 DS0s	8 min
5. Post work request complete in WFA-DI (1 technician)-24 DS0s	2 min
6. Complete work request with CCT-1 (1 technician)-24 DS0s	3 min
<b>DISCONNECT (ALL ORDERS)</b>	
1. Analyze Order	5 min
2. Remove Cross-connect	23 min
3. Complete work request in WFA-DI	2 min

**TAB 9**

FOR ALL UNBUNDLED ELEMENTS ORDERS THAT REQUIRE DISPATCH	
1. Screen Order	2 min
2. Load work request to Technician	5 min
3. Closeout work request with Technician	5 min
SOURCE:	
Carroll Mills - Staff Manager	
Apr-00	

**LRAC PROCESS DETAIL**

**Install**

**1. Screen order.**

The LRAC Load Specialist reviews the work request for any special instructions on the field dispatch.

**2. Load work request to DS I&M Technician.**

The LRAC Load Specialist loads the work request to the DS I&M Technician in WFA-DO.

**3. Close work request with DS I&M Technician.**

The Load Specialist receives a call from the DS I&M Technician.

The Load Specialist updates WFA-DO with any pertinent information about the order completion.

**TAB 10**

# INSTALLATION

Performs necessary field work on new orders and changes to existing service including:

- Travel to customer premises
- Cross-connect activity at feeder plant to distribution plant field locations
- Customer premises work activities to connect circuit at the network interface
- Circuit testing as required
- Order completion with LRAC

## TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

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- The time estimates do not include supplements to the initial order.
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DATE: 05-06-99

TO: Dan Deffley

FROM: Diane Kinkel  
Designed Services Staff Manager

SUBJECT: Interconnection, Unbundled Network Elements

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Key Assumptions:

- ◆ The times documented here are average times.
- ◆ They do not reflect problems encountered during the processing of the service order.
- ◆ They do not include supplements to the initial order.
- ◆ These estimates do not include any maintenance or repair time.
- ◆ This process is forward-looking to year-end 1999.

If you have any questions concerning the attached data, please call me on 303-896-1672.



**INSTALLER**

**I&M Technician Work  
Activities**

**DS1 or DS3  
Entrance Facility**

Travel to end user premises	21 minutes
Contact CCT-1 to work order	3 minutes
Complete jumper activity	4 minutes
Place Loopback Test Plug	2 minutes
Test with implementor *	15 minutes
Remove Loopback Test Plug	2 minutes
Contact Load Specialist to close work request	3 minutes

\* The installer will test with the implementor 50% of the time. 50% of the time a Network Interface Unit is placed with no test participation required.

**TAB 11**

## **IMPLEMENTOR**

Has overall control responsibility for provisioning, maintaining, coordination and testing of designed services.

Contacts other centers/technicians for the coordinated effort to complete service order activity requirements.

Tests with central office, field installation personnel as necessary.

Provides test results to customer.

Notify customer of work completed

Complete order in required systems (Work Force Administration)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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LIS-MUX

IMPLEMENTOR	COST ELEMENT	
	MUX	MUX
	DS1 - DSO	DS3- DS1
WORK ACTIVITY	minutes	minutes
<b>INSTALL</b>		
SCREEN WFA FOR CIRCUIT	10	10
VERIFY LNO COMPLETION	10	10
NOTIFY CUSTOMER	1	1
COMPLETE CIRCUIT IN WFA/C	10	10
<b>DISCONNECT</b>		
SCREEN WFA FOR CIRCUIT	5	5
CONTACT CUSTOMER	1	1
COMPLETE CIRCUIT IN WFA/C	5	5
<p><b>NOTE:</b> The times documented above are average estimates.            They do not reflect times spent for supplement to the order.            They do not reflect problems with the order or redesign issues.            They do not reflect problems or trouble at test with systems or with the customer.            All times are based on a perfect service order and no problems encountered at test &amp; turnup.            These times are forward-looking. 1A switch type is not represented in these times.            Attached are the functions associated with the steps performed by the implementor.</p>		
<b>SOURCE:</b>		
LINDA HENDRICKS, IMPLEMENTOR CENTER STAFF		
<b>DATE</b> 1/6/98		
Review 5/99 Linda Hendricks		

LIS TRUNKS DS1 OR DS3 INTERFACE IMPLEMENTOR WORK ACTIVITY	COST ELEMENT		minutes																															
	PER TRUNK PER ORDER																																	
	DIGITAL SWITCHES																																	
	F	EA																																
	per trunk per order																																	
	minutes																																	
<u>INSTALL</u>																																		
SCREEN WFA FOR CIRCUIT	10	0.4																																
VERIFY LNO COMPLETION	10	0.4																																
Set DS1 Trans Opts in Switch /Add TG members	30	na																																
TEST CIRCUIT/ Trunk Group Mem.	25	1																																
NOTIFY CUSTOMER	5	na																																
COMPLETE CIRCUIT IN WFA/C	10	0.4																																
This time reflects pulling in 24 members & TCICs on a T1 facility and setting the options																																		
FACILITY ORDER (per order) *	70	na																																
<u>DISCONNECT</u>																																		
Remove TCICs & TG Members in Switch	20	na																																
SCREEN WFA FOR CIRCUIT	5	na																																
CONTACT CUSTOMER	5	na																																
COMPLETE CIRCUIT IN WFA/C	5	na																																
DS1 FACILITY ORDER (per order)	15	na																																
<p>* Cost study assumes DS1 EF provisioned from POP to end office. One order DS1 cost recovered in EF. If DS3 EF, DS1 Transport order spread across trunks. Study assume DS1 transport regardless of EF Interface.</p> <p>(*) Facility order work activities:</p> <table border="1"> <thead> <tr> <th></th> <th>minutes</th> </tr> </thead> <tbody> <tr> <td><b>INWARD</b></td> <td></td> </tr> <tr> <td>SCREEN WFA FOR CIRCUIT</td> <td>10</td> </tr> <tr> <td>VERIFY LNO COMPLETION</td> <td>10</td> </tr> <tr> <td>TEST CIRCUIT</td> <td>35</td> </tr> <tr> <td>NOTIFY CUSTOMER</td> <td>5</td> </tr> <tr> <td>COMPLETE CKT IN WFA/C</td> <td>10</td> </tr> <tr> <td><b>total</b></td> <td><b>70</b></td> </tr> <tr> <td><b>DISCONNECT</b></td> <td></td> </tr> <tr> <td>SCREEN WFA FOR CIRCUIT</td> <td>5</td> </tr> <tr> <td>CONTACT CUSTOMER</td> <td>5</td> </tr> <tr> <td>COMPLETE CKT IN WFA/C</td> <td>5</td> </tr> <tr> <td><b>total</b></td> <td><b>15</b></td> </tr> </tbody> </table>										minutes	<b>INWARD</b>		SCREEN WFA FOR CIRCUIT	10	VERIFY LNO COMPLETION	10	TEST CIRCUIT	35	NOTIFY CUSTOMER	5	COMPLETE CKT IN WFA/C	10	<b>total</b>	<b>70</b>	<b>DISCONNECT</b>		SCREEN WFA FOR CIRCUIT	5	CONTACT CUSTOMER	5	COMPLETE CKT IN WFA/C	5	<b>total</b>	<b>15</b>
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COMPLETE CKT IN WFA/C	5																																	
<b>total</b>	<b>15</b>																																	
<p>NOTE: The times documented above are average estimates.                  They do not reflect times spent for supplement to the order.                  They do not reflect problems with the order or redesign issues.                  They do not reflect translations or programming problems.                  They do not reflect problems or trouble with systems or with the customer.                  All times are based on a perfect service order and no problems encountered at test &amp; turnup.                  These times are forward-looking, 1A switch type is not represented in these times.                  Attached are the functions associated with the steps performed by the implementor.                  Attached are the functions associated with the Feature Group product.                  Both are needed (when applicable) to perform tasks.</p>																																		
<p>SOURCE:                  MARLENE MIRIAN - STAFF MANAGER                  DATE 03/09/01</p>																																		

## Install

### 1. Screen WFA-C for Order accuracy.

The CCT-I accesses the WFA-C OSSLST (Order List) screen to examine and prioritize order load by Critical Date.

The CCT-I accesses the WORD document on the OWDDOC (WORD Document) screen to examine work request.

The CCT-I locates the installation option of the work request on the WORD document and determines if additional work steps must be created for the Central Office Technician (i.e., DD work activities).

If the order request is for a Coordinated Installation Option, the CCT-I determines the "Appointment Time".

If No "Appointment Time" has been specified, the CCT-I contacts the Service Delivery Coordinator (SDC) via telephone to obtain an "Appointment Time".

Once the "Appointment Time" has been determined, the CCT-I builds the Central Office DD work request on the WFA-C OSSCWL (Circuit Work Location) screen specifying the requested "Appointment Time".

The CCT-I updates the WFA-DO DOSOI (Service Order Installation) screen with the "Appointment Time".

The CCT-I notifies the CORAC and LRAC of the Coordinated work request via a telephone call.

The CCT-I examines the Circuit Details portion of the WORD document for circuit design completeness.

The CCT-I sets any other pertinent Calendar (CAL) events on the WFA-C OSSLST (Order List) screen.

The CCT-I completes the SCR Critical Date on the WFA-C OSSOI (Order Installation) screen.

### 2. Verify LNO completion.

The CCT-I verifies the LNO (Central Office and/or I&M technician has completed the physical work required on the work request for DVA and DD. Typically, DVA will post automatically at the item level once all of the DVA dates have been met at the Circuit

If CWLs have not been completed by the DVA date, the CCT-I notifies the Central Office to complete the CWLs.

If the physical work cannot be completed, the CCT-I posts a jeopardy against the DVA date. The current Designed Services Jeopardy process is then followed.

If a Coordinated Cut has been requested, the CCT-I will call the Co-Provider to receive and "OK" to begin work.

If the work cannot be completed on DD because the Co-Provider is not ready, the CCT-I places a "C" code jeopardy against the order. The current Designed Services Jeopardy process is then followed.

If the work cannot be completed on DD because of a USW problem, the CCT-I will post the appropriate jeopardy code against the DD. The current Designed Services Jeopardy process is then followed.

The CCT-I makes the appropriate remark entries into the WFA-C OSSLOG (Work Request Log).

### 3A. Monitor Performance Testing.

The CCT-I monitors and records the test results on the WFA-C OSSCN (Circuit Notes) screen. These test results are obtained by the Central Office technician and the DS I&M technician testing the newly provisioned circuit. The tests performed are listed i

### 3B. Complete Performance Testing.

In cases where the CCT-I is able to test, the testing is performed with the DS I&M Technician. The CCT-I records the test results on the WFA-C OSSCN (Circuit Notes) screen. The tests performed are listed in the Test Requirement document attached.

### 4. Coordinate Cooperative Testing

The CCT-I acts as the central contact between the DS I&M technician and the Co-Provider.

The CCT-I notes the tests performed and enters the result information on the WFA-C OSSCN (Circuit Notes) screen.

The CCT-I records any pertinent remarks on the WFA-C OSSLOG (Work Request Log).

### 5. Notify Co-Provider of order completion.

The CCT-I notifies the Co-Provider that the work request is completed.

The CCT-I informs the Co-Provider of any additional charges that will apply.

The CCT-I provides required test result information to the Co-Provider.

The CCT-I records the Co-Provider order completion contact information on the WFA-C OSSLOG (Work Request Log).

#### 6. Post order complete in WFA-C.

The CCT-I posts the Due Date complete on the WFA-C OSSOI (Order Installation) screen.

The CCT-I completes any additional remarks on the WFA-C OSSLOG (Work Request Log).

The CCT-I completes any required electronic billing or rebates in WFA-C.

### Disconnect

#### 1. Screen WFA-C for Order accuracy.

Screen OSSLST

Verify information on WORD document

Refer WORD document back to Designer if not accurate

Check for Co-Provider work locations involved on order

Enter note if Co-Provider involved on OSSCN

Check for remote test capability and hand-off to Designer or LNO if appropriate

Check to see if item is loaded in WFA-DI/DO

Assign Critical Dates

Enter name and number on DOISWR

#### 2. Contact Co-Provider

Notify customer work is complete

Add pertinent notes to OSSCN screen

If customer is not available, enter the following information on the OSSOIZ screen

No customer contact

Telephone Number called

#### 3. Complete circuit in WFA-C

Check WFA-C OSSLST for critical events

Check DISP for PRE status

Jeopardize and escalate to accommodate customer's need

Add additional billing charges

Complete order in WFA-C

Perform required tests

Contact Designer if required



**TAB 12**

# COMPLEX TRANSLATIONS

## NROC (Network Reliability Operations Center)

Complex translations has the responsibility for:

- Administrating switching machines
- Validating update data, line equipment, central office translations, traffic patterns usage
- Coordinates monitoring machine growth jobs

### TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

November 6, 1997

Memo To: Dan Deffley

From: Deb Dory

RE: Complex Transiations Time Estimates for LIS Trunking

High Level Overview

LIS trunking interconnects U S WEST end offices and tandems to other local service providers. These trunks are accessed by U S WEST subscribers by dialing a NPA-NXX that is assigned to the other local service providers. The end office/tandem switch analyzes the digits dialed, locates the route index for the NXX, analyzes the route index for trunk group, alternate routing information, and digits to be outpulsed. The switch then searches the trunk group for an idle trunk and sends the call to the other local service provider switch.

In a basic configuration between U S WEST and another local service provider, there is a trunk group to the local tandem and the access tandem. Direct trunk groups to end offices may be added for exchange of local calls if needed. The cost estimates address the end office direct trunk group or the tandem trunk group, which ever is the case. If the trunk group being installed is an end office direct group that the NPA-NXX work in only in that end office.

Complex Transiations receives information to perform LIS trunking work via the ASR/TQ from the local service provider and via the NPA/NXX Coordination Worksheet from the Service Delivery Centers.

Today, to my knowledge, we do not charge other service providers to open their NXXs in our switches. This should be checked out for sure with the product team, however it is a major component of the costs associated with activating a new trunk group to another local service provider.

Trunk Group Transiations

Complex Transiations is responsible for building trunk group level transiations. This work is the same no matter what the size of the trunk group. Trunk group level transiations includes but is not limited to:

Signaling Type used, MF or SS7  
Hint Sequence, high to low, most idle, etc  
Screening and Routing of incoming calls

Glare Resolution  
Data Rate Capabilities

Complex transiations is not involved in trunking activity adding trunks to existing trunk groups.

**Subject:** questions  
**Date:** Mon. 05 Mar 2001 09:57:02 -0700  
**From:** "Debra Dory" <dkdory@uswest.com>  
**Organization:** U S WEST Communications. Inc.  
**To:** deorial@uswest.com

**Assign Trunk Group**-The translator receives a call from a service delivery coordinator requesting a trunk group number. Translator reviews the ASR, determines the trunk group type, transmission type, clarifies any unknowns, and gives the SDC a trunk group number and transmission class. The translator then logs the event for the receipt of the finished ASR.

**Analyze ASR/TQ** - Upon receipt of the ASR/TQ, the translator reviews the document to determine how to build the trunk group, accuracy, and completeness, such as hunting sequence, glare control, alternate routing, signaling, NPA-NXXs, trunk group type, etc. If there are any questions, the translators gets back to the SDC for clarification or corrections.

**Build trunk group** - using the complete and accurate ASR/TQ, the translator inputs into translations all the characteristics of the new trunk group using the trunk group number assigned above and the information from the ASR.

**Assign Route index** - Again using the ASR/TQ, the translator assigns and build a route index using the new trunk group built above. A route index has the alternate routing information and the digits outpulsed information for the new trunk group.

**Perform Test Call** - the translator access the remote office test line for the office being tested. The translator makes sure the test line has the correct class of service assigned. The Translator dials the test number provided, listened for the results, makes any corrections necessary if test not completed satisfactorily.

**Complete Work Item** - Translators document that work is complete in a tracking system called PROTECT. The completion indicates that the work is done and there is a separate item to indicate the test call was completed.

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Debra Dory <dkdory@uswest.com > Technical Support Manager NROC Network Complex Services
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TRANSLATIONS

SWITCHED ACCESS - CIC, NEW ACTIVATION GROUP - TRANSLATIONS DEB DOTY - STAFF MANAGER TRUNK GROUP(S)	TIME ESTIMATES	NOTES
Assign TGN (Trunk Group Number)	10 min	per trunk group basis
Analyze ASR/TQ for trunking items	10 min	per trunk group basis
Build new Trunk Group which includes the following trunk group level data: -signalling type -hunt type -glare resolution type -incoming screening -CIC	20 min	per trunk group basis
<b>ROUTE INDEX(ES)</b>		
Assign RI	10 min	average 2 ri/trunk group
Analyze ASR/TQ for CIC routing	10 min	per trunk group basis
Build new Route Index which includes: -alternate routing, if applicable	10 min	average 2 ri/trunk group

It is estimated that new trunk groups are ordered 50% of the time on ASRs per SDC.  
There is no translations work necessary for trunk group augment orders.

## Route Index

Trunk Groups are accessed by route indexes. Route indexes define routing information for the call such as how many digits to compare, what is the trunk group to use, and if all the trunk are busy, what is the next route to take.

**TAB 13**

## **SERVICE DELIVERY COORDINATOR**

Wholesale markets – Service Delivery serve as the primary order provisioning contact for CLECs, Interexchange Carriers and Wireless customers who purchase complex wholesale and retail products and services (i.e., Private Line, Feature Group, LIS Trunking, Centrex Resale, Number Portability) from Qwest.

The center teams provide end-to-end order coordination from request through order completion and serve as the primary liaison for the customer for all downstream organizations.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.



Subject: Cost Study  
Date: Tue, 21 May 2002 10:37:36 -0600  
From: "Cindy Kalakis" <ckalaki@gwest.com>  
To: ddeffle@uswest.com  
CC: "Terri McQuiston" <tporter@notes.uswc.uswest.com>  
 , "Linda Kae Olsen" <lxolsen@notes.uswc.uswest.com>  
 , "Ronda Bergstedt" <rbergst@notes.uswc.uswest.com>  
 , "Nancy Chapman" <nljohns@notes.uswc.uswest.com>

Dan:

Attached is the cost study spreadsheets for Private Line, Switched Access, LIS and UDIT.

I did a comparison on like functions and it seems we are in synch. There are some differences with the SHNS-SST because of the complexity of the product but I think we are either the same or justifiably different where appropriate between all the products.

If you need to get us all together again to discuss, let me know, I'll be happy to set up a meeting, or you can talk to the Product Process Specialist for each product if you have questions.

Thanks for your patience!

Cindy

(See attached file: SDC TIMES 2002-Summary-all prod.xls)

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Name: SDC TIMES 2002-Summary-all  
prod.xls  
SDC TIMES 2002-Summary-all prod.xls    Type: Microsoft Excel Worksheet  
(application/vnd.ms-excel)  
Encoding: base64

UDIT COLLO  
CROSS-CONNECT

INSTALL		CROSS-CONNECT				Change	Notes
		Time Estimates in Minutes					
Item	Work Activity Description	CONVERSION FROM ACCESS	COLLO XFER OF USE	TRUNKS		Change	Notes
				INSTALL FIRST	INSTALL EA ADDL		
Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list			1			This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT. *90% of ASRs are mechanical
Receive ASR via FAX*	Input ASR into EXACT Manually			10			This is the time that it would take the SDC to manually input the information on all the EXACT screens. *10% of ASRs are manually faxed.
Validate ASR in EXACT	Check for the accuracy of the ASR fields and make sure all information is present			10			Entries are made to add order number, circuit ID and intervals to the service order. The address is validated for accuracy. The Qwest EXACT screens are populated in this step.
Check Credit Info/Security	Check if customer is already established with Qwest or if credit info is required. Check RDLOC screen to validate who owns the collocation.			2			This is done 100% of the time.
TIRKS	Check CBLP to validate if slot is spare			3			
TIRKS	Check to make sure the address is premis valid			5			This is to verify if CCEA/SCCEA entries are valid.
Validate address in TAG	Check the IABS TCR table to ensure rates are loaded for UDIT for customer's contract.			3			This is done 100% of the time.
Validate Contract Rates	Check to see if LOA is necessary. If LOA is needed is it on file or does the SDC need to request a new one.			3			This is done 100% of the time.
Verify LOA*	Make sure the circuit ID passed by the customer is the same on our TAXI records. Verify the BAN provided by the customer is accurate and if not accurate locate the correct BAN.			5			*65% of the time
Verify TAXI	If the request is for co-provided service, the SDC must make sure all entries are on the ASR and negotiate dates with the ICO.			0			Not required on new installations - only change orders.
Coordinate as ICO	Handling calls from the IXC change to co-provider and from within the company regarding the ASR.			8			35% of the time. per Rhonda Bergstadt
Intra Company Calls	Mechanically confirm the ASR			13			
Mechanical FOC*				1			You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90%

INSTALL

Time Estimates in Minutes

Item	Work Activity Description	CONVERSION FROM ACCESS	COLLO XFER OF USE	TRUNKS		Change	Notes
				INSTALL FIRST	INSTALL EA ADDL		

UDI COLLO  
CROSS CONNECT

Manually FOC*	Manually confirm the ASR, print the screen and fax to the customer. Includes the FAX of the DLR.				6			*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *Manual FOC is 10%
Distribute the order to IABS	Send the order through the EXACT/TUF module in TIRKS and into IABS.				1			This is a mechanical process within EXACT. Check for correct rate elements/USOCs and nonrecurring charges application.
Validate IABS Service order	Check to make sure the service order is complete and accurate.				6			*Order must be created from scratch
Distribute Service Order to the SOPs	Send order to RSOLAR, SOLAR or SOPAD. This is automatically done when the order is processed in IABS.				1			
Check SOAC	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS.				3			
Check WFA	Check WFA for completion of service order.				3			
Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.				5			Validate required FIDs are present.
Complete IABS Service Order	Type the correct codes to complete the order in IABS.				1			
Complete EXACT	Type correct information into EXACT and complete the ASR.				1			
Note EXACT	Make any applicable notes in EXACT				2			

**DISCONNECT**

Time Estimates In Minutes

Item	Work Activity Description	CONVERSION FROM ACCESS	TRUNKS				Change	Notes
			COLLO XFER OF USE	DISC FIRST	DISC EA ADDL			
Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list.			1			This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT.	
Receive ASR via FAX	Input ASR into EXACT manually			10			This is the time that it would take the SDC to manually input the information on all the EXACT screens.	
Verify TAXI	Make sure the circuit ID passed by the customer to be disconnected is the same on our TAXI records. Verify the BAN provided by the carrier is accurate and if not accurate locate the correct BAN.			5				
Validate ASR in EXACT	Make sure all necessary entries are present on the ASR.			5				
Validate in TIRKS	Verify all sub-circuits have been removed if muxed circuit.			3			3 % probability.	
Intra-Company Calls	Handling calls from the IXC change to co-provider and from within the company regarding the ASR			5				

UDI COLLO  
CROSS CONNECT

Mechanical FOC*	Mechanically confirm the ASR			1			*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *
Manually FOC*	Manually confirm the ASR, print the screen and fax to the customer. Includes the FAX of the DLR.			6			
Distribute the order to IABS	Send the order through the EXACT/TUF module in TIRKS and into IABS.			1			
Validate IABS Service order	Check to make sure the service order is complete and accurate.			5			* Create order from scratch
Distribute Service Order to the SOPs	Send order to RSOLAR, SOLAR or SOPAD. This is automatically done when the order is processed in IABS.			1			
Check SOAC	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS.			3			
Check WFA	Check WFA for completion of service order.			3			
<b>DISCONNECT</b>		<b>Time Estimates in Minutes</b>					

Item	Work Activity Description	TRUNKS				Change	Notes
		CONVERSION FROM ACCESS	COLLO X/IFER OF USE	DISC FIRST	DISC EA ADDL		
Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.			5			
Complete IABS Service Order	Type the correct codes to complete the order in IABS.			1			
Complete EXACT	Type correct information into EXACT and complete the ASR.			1			
Note EXACT	Make any applicable notes in EXACT			2			

## **TASK DESCRIPTIONS**

**Receive ASR** - If the ASR is received mechanically the SDC pulls up the ASR number from their work list and begins the next step of validating the ASR.

If the ASR is received manually via FAX the SDC must input all information from the paper copy on to the electronic screens.

**Validate ASR in EXACT** - Validating EXACT screens and reviewing the ASR for errors, adding additional information required for service order processing. Screens may include: ICORD, ICTRK, ICCKT, ICACI and ICNTS.

This includes verifying all information required to issue a 2 point or multiplexed circuit has been received.

**Verify address in TAG** - Check the Telephone Address GUI (TAG) system to verify that the address is premis valid. This eliminates problems downstream for assignments.

**Verify LOA** - Check to see if LOA is necessary. If LOA is needed is it on file or does the SDC need to request a new one.

**Verify Taxi** - Verify circuit ID passed by the customer matches TAXI. Verify any/all sub-circuits removed prior to disconnecting multiplexed circuit.

**Coordinate as ILEC** - Validate appropriate entries in EXACT for co-provided service, coordinate due dates with Exchange Carrier.

**Check TIRKS** - If the request is for a muxed facility the SDC must check TIRKS to determine the name for the circuit. With SST/SHNS verify SCID in TIRKS. If disconnecting multiplexed circuit verify all sub-circuits have been disconnected /moved.

**Call LCON** - All requests ending up at and end-user location must be called to verify wiring location and access information.

**Verify EXACT** - This includes verifying all information required to issue a 2 point or multiplexed circuit has been received.

**Intra-Company Calls** - Handling phone calls from the Interexchange carrier and calls from within the company to resolve issues surrounding the ASR and Service order.

When SST is multiplexed the SDC must also call the project manager for the circuit ID, SCID and due date.

**Mechanical FOC** - Firm Order Confirmation transaction completed in EXACT. Required on all ASRs sent mechanically. Mechanized customers receive automatically when transaction completed. Customers receive the DLR automatically from TIRKS.

**Manually FOC** - On non-electronic ASRs, after FOC task completed, the EXACT screen is printed and either faxed or mailed to the customer. The DLR is pulled from the printer and either faxed or mailed to the customer.

**Order Distribution to IABS** - Complete the command to send the order through the EXACT/TUF translation module and send to IABS.

**Order Validation** - Check the entries that were passed from EXACT/TUF and make sure they are correct.  
Any additional information necessary to process the order.

**Distribute the Service order to the SOPS** - Complete the command to send the order to the Service order processors.

**Check SOAC** - The order must be checked in this database to make sure there are two successes, the order logging and the word logging portion must be successful for the order to then pass to TIRKS.  
If MAP T FID present on order, verify order has NOT passed through SOAC.

**Order Completion** - Check WFA for any additional USOCs that must be added to the service order, note the completion date of the service order.

**Complete IABS service order** - Add any additional billing information to the service order and complete the service order.

**Complete EXACT** - Make appropriate entries in EXACT and complete ASR. Make appropriate entries in EXACT notes.

**Conferred with:**

**Ronda Bergstedt - Process Specialist DS0, DS1 & SHARP/SHNS services**

**Nancy Chapman - Process Specialist DS3 & SST**

**Cindy Kalakis - Process Specialist UDIT**

**Linda Kae Olson - Process Specialist LIS**

**Terri McQuiston - Process Specialist - Switched**

**TAB 14**



## DESIGN

- Overall responsibility for RID (Record Issue Date) completion.
- Upholding Qwest design standards
- Assigns interoffice facilities and equipment at the circuit level
- Prepares and distributes WORD (Work Order Record Detail) including DLR (Design Layout Record).
- Ensures that TIRKS (Trunks Integrated Record Keeping System) designs meet the customer expectations.
- Escalates as necessary to ensure pre-RID dates are met.
- Advises Qwest sales forces or order originators of jeopardies as they are discovered.
- Maintains TIRKS database integrity by making design changes as they occur (i.e. cable pair changes, etc.)

## TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

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- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**Subject:** Clec to Clec Backup

**Date:** Thu, 18 Feb 1999 14:26:46 -0600

**From:** "Kathryn Platts" <kplatts@notes.mnet.uswest.com>

**To:** "Daniel V Deffley" <ddeffle@uswest.com>

Hi Dan,

In looking over the documentation for the Hicap Regular Design, we would have to follow the same steps as the Hicap Design, the only difference I can see is that Prepare Loop/Dri part would not have as extensive of information that a regular Hicap design would. We would still need to do the steps involved, but we would not really have a loop screen per say. There would be no loop involved, but we would need to do all the other steps like verify dri, lpacm screens, put notes on gcnote, put note lines on the cd screen about the cross connect itself.

I still think the times are ok and do not need to be changed at all. I do think we will need to readdress this after we have done our bit testing of the cross connect issue.

I hope this helps, if you need more let me know.

Linda will be in Fort Collins next week, so I'm not sure I can get that info to you as soon as I promised, that would be the tesing issues we talked about yesterday.

Also Kay did not come in today, I will talk to her Friday morning and call you after I have picked her brain about the Switch Port.

Kathy

COST ELEMENT		
DS1, DS3 CAPABLE LOOP	DS1/DS3	%
		MANUAL PROB
<b>DESIGN</b>		
<b>WORK ACTIVITY</b>		
<u>INSTALL</u>		
ORDER HANDLING/SCREENING	5	0.20
GOC ORDER LOG	6	0.20
ENTER WA MASK	5	0.80
PREP LOOP INPUT/DRI	15	0.75
CIRCUIT DESIGN	30	1.00
DISTRIBUTE WORD DOC	2	0.90
<u>DISCONNECT</u>		
ORDER HANDLING/SCREENING	5	0.10
GOC ORDER LOG	5	0.10
ENTER WA MASK	5	0.10
DISCONNECT CIRCUIT	5	0.10
DISTRIBUTE WORD DOC	2	0.10
<u>NOTE</u>		
The time estimates and probability percentages listed are forward-looking to year end 1998.		
These work activities are required to process a service request that falls out of the TIRKS system for mechanized design.		
These are average times. The times assume the technician will not encounter problems during the manual process necessary to process the service request.		
<u>SOURCE</u>		
KATHY PLATT'S		
DESIGN CENTER STAFF		
1/99		
MARCH 2000 Per Kathy Platts, these times and probabilities are appropriate for high cap loop and feeder subloop order processing.		

PRIVATE LINE SERVICES

Jan-88	
<b>SERVICE DELIVERY DESIGN ANALOG PROCESS</b>	
Work Activity Descriptions :	
<b>INSTALL</b>	
<b>1. Order Handling/Screening</b>	
Check for Order Accuracy :	
Check Service Order Analysis and Control (SDAC) for Request for Manual Assistance (RMA's)	
Verify A & Z Location in RDLOC	
Access Trunks Integrated Remote Keyping System (TIRKS) for Circuit	
Check Order for Coordination Time (if not available)	
Call Order Originator to ask for Coordination	
<b>2. Generic Order Control (GOC) Order Logging</b>	
Access TIRKS (Work Authorization (WA), PCFLOW, GONOTE)	
Verify Order in Service Processor	
Screen and Log GOC	
Put Remains in GONOTE Order Manually Logged	
<b>3. Enter WA Mask</b>	
Check Availability of Facilities in TIRKS	
Add Required Data to WA Screen	
Verify that WA Screen Matches Service Order	
Manually input WA Screen :	
<b>4. Prepare Loop/Design Related Information (DRI) Screen</b>	
Verify that Loop Facilities Assignment and Control System (LFACS) Assignments & TIRKS Agree	
Check information on LPADM, DRI, LOOP2 and CD Screen	
Resolve Design Related Information (DRI) Errors	
Resolve Local Loop Errors	
Manually load the LPADM, DRI, LOOP2 and CD Screen	
<b>5. Circuit Design</b>	
Check GONOTE or PCFLOW for error	
Resolve Facility, Assignment or Equipment Issues with Communications Processor (CP)	
Resolve Circuit Detail Errors:	
Edit Circuit Detail Document	
Approve and Escalate Order	
<b>6. Distribute Word document</b>	
Distribute Design Document :	
Resolve any Distribution Errors	
Issue Design Layout Report (DLR)	
Issue Word Document	
<b>DISCONNECT</b>	
<b>1. Order Handling/Screening</b>	
Check for Order Accuracy	
Check SDAC for RMA's	
Verify A & Z Location in RDLOC	
Access TIRKS for Circuit	
<b>2. GOC Order Logging</b>	
Access TIRKS (WA, PCFLOW, GONOTE)	
Verify Order in Service Processor	
Screen and Log GOC	
Put Remains in GONOTE Order Manually Logged	

# PRIVATE LINE SERVICES

13. Enter WA Mask
Verify Facilities in TRKS
Add Required Data to WA Screen
Verify that WA Screen Matches Service Order
Manually enter WA Screen
14. Disconnect Circuit
Check GONOTE or PCFLOW for error
Resolve Facility, Assignment or Equipment Issues with CP
Resolve Circuit Detail Document
Generate and Estimate Order
15. Distribute Word Document
Distribute Design Document
Resolve any Distribution Errors
Issue DLR
Issue Word Document

**TAB 15**

## CENTRAL OFFICE

Responsible for service connection in the central office and associated testing and administrative functions. Places cross-connects (jumpers), performs cross-office testing, and provides support to field installation and control center for circuit testing as required.

### TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

Central Office Technician Work Activities (New Connect Order)	COPROVIDER/COPR OVIDER CROSS- CONNECT
Analyze Order	5 minutes
Complete Cross-connects	4 minutes
Complete WFA-DI order	2 minutes
Complete Order with CCT-I	3 minutes

Central Office Technician Work Activities Disconnect Connect Order)	COPROVIDER/COPR OVIDER CROSS- CONNECT
Analyze Order	5 minutes
Remove Cross-connects	23 minutes
Complete WFA-DI order	2 minutes

Source: Jerry Szibulski, Linda Hendricks 2/17/96



**TAB 16**

## **IMPLEMENTOR**

Has overall control responsibility for provisioning, maintaining, coordination and testing of designed services.

Contacts other centers/technicians for the coordinated effort to complete service order activity requirements.

Tests with central office, field installation personnel as necessary.

Provides test results to customer.

Notify customer of work completed

Complete order in required systems (Work Force Administration)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**Subject: CLEC TO CLEC**

**Date: Fri, 5 Feb 1999 16:14:22 -0600**

**From: "Linda Hendricks" <lkhendr@notes.mnet.uswest.com>**

**To: ddeffle@uswest.com, gshypul@uswest.com**

The attached is what I feel the times would be for the CLEC to CLEC Cross Connect.

(See attached file: CLEC TO CLEC COMBO.doc)

The interim process is not written yet, but how I am seeing the Implementors roll is:

Receive request in WFA/C (SCR/WSD)  
Hand off to WFA/DI for COT work step (SCR/WSD)  
Verify work is complete by COT and post DVA complete ( DVA)  
Call customer and let them know order is cross connected (DVA or FCD)  
We call customer to verify they have tested the circuit and all is ok.... (PTD)  
Complete order in WFA/C on DD

Linda

---

CLEC TO CLEC COMBO.doc	<b>Name:</b> CLEC TO CLEC COMBO.doc <b>Type:</b> Winword File (application/msword) <b>Encoding:</b> base64 <b>Description:</b> Word 6.0 Windows/Mac
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CLEC TO CLEC COMBINATION  
 LINDA HENDRICKS  
 FEBRUARY 5, 1999

DESCRIPTION	DS1DS3	
	BASE	INSTALL
	(REUSE)	
	F	EA
Per Order		
<b>IMPLEMENTOR</b>		
<i>INSTALL</i>		
• SCREEN WFA FOR CIRCUIT	5	5
• VERIFY LNO COMPLETION	5	5
• TEST CKT	0	0
• NOTIFY CUSTOMER	5	5
• COMPLETE CKT IN WFA/C	10	10
<i>DISCONNECT</i>		
• SCREEN WFA FOR CKT	5	0
• CONTACT CUSTOMER	5	0
• COMPLETE CKT IN WFA/C	5	0

The times documented above are average estimates.  
 They do not reflect times spent for supplement to the order.  
 They do not reflect problems with the order or redesign issues.  
 They do not reflect problems or trouble at test, with systems or with the customer.  
 All times are based on a perfect service order and no problems encountered at test & rampup.

Attached are the functions associated with the steps performed by the Implementor.

[Vertical text, likely a file path or reference number, partially illegible]

**TAB 17**

**JULY 2001**

**THE FOLLOWING NETWORK TIMES FOR UNLOADING  
LOOPS HAVE BEEN REVIEWED AND STILL APPLY TO  
THE CURRENT SERVICE ORDER PROVISIONING  
PROCESS.**

**Per Al Meins  
Lead Process Analyst**

1st-4 <sup>th</sup> Fax Note	7671	Date 3/14	Page 1
TO: DAN DEFFLEY		FROM: MARK NICKELL	
Co.		Phone #	
402-422-5534		Fax # 303-707-7201	

**USWEST**  
 COMMUNICATIONS ©  
 Network & Technology Services - Interconnect

**MEMORANDUM/ FACSIMILE**

**DATE:** October 19, 1995

<b>FOR:</b>	<i>Telephone</i>	<i>FAX</i>
Dan Deffley	402-422-7281	402-422-5534
<b>FROM:</b>		
Mark Nickell	303 707-7201	303 707-9338
<b>CC:</b>		
Jo Gentry	303-965-4327	303-896-6297
Susie Dalton	303-707-7471	303-707-9795

**SUBJECT:** incremental Network Times for Unloading Loops

Per our 10/18/95 conference call, I am providing the following incremental time estimates. These time increments are for unloading one 25 pair cable group in an underground environment.

Engineering	180 minutes
Splicing technician:	
Travel time	20 minutes
Site Setup (utility hole)	
1. Work area protection	20 minutes
2. Test and ventilate utility hole and/or pit	20 minutes
3. Pumping and cleaning utility hole	negated <sup>1</sup>
4. Buffering pressurized cables	negated <sup>2</sup>
Splicing operation	
1. Open splice case	15 minutes
2. Unload 1 pair	15 minutes
3. Close splice case	15 minutes
4. Re-pressurize and flash test	15 minutes
Site tear down	
1. Close utility hole and remove work area protection	30 minutes
Total splicing technician time per utility hole	150 minutes

It is assumed that if unloading is required, then the minimum number of load coils will be (3). This number is determined by dividing 18,000 Kf.<sup>3</sup> by 6,000 ft.<sup>4</sup> The following times were developed using this assumption:

Engineering time <sup>5</sup> :	180 minutes
Splicing technician's time:	150 x 3 = 450 minutes

<sup>1</sup> Utility hole is not always pumped out and cleaned  
<sup>2</sup> Cables are not always buffered.  
<sup>3</sup> Standard unloaded loop length.  
<sup>4</sup> Standard load coil interval.  
<sup>5</sup> One time job cost that does not include incremental times per utility hole.

**TAB 18**



## **INTERCONNECT SERVICE CENTER**

Serves as the primary order provisioning contact for Competitive Local Exchange Carrier (CLEC) customers who purchase unbundled network elements products and services (i.e. Number Portability, Unbundled Loop, Unbundled Lineside Port, Resale) from Qwest.

The center provides end-to-end order coordination from request through order completion and serves as the primary liaison for the customer for all downstream organizations.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**Subject:** Documentation of flowthrough expectations

**Date:** Wed, 21 Mar 2001 14:06:41 -0700

**From:** "John Curtis" <jxcurt2@uswest.com>

**Organization:** MSF&W SOFTWARE

**To:** ddeffle@uswest.com, dgolieh@uswest.com, tmillio@uswest.com,

Wendy Jackson <wjacks@uswest.com>

Dan,

Attached is the document we discussed in February.


--

John Curtis

IT Regulatory

Phone: 303-965-6324

Fax: 303-965-0301

 LSR flow through documentation for cost models.doc

**Name:** LSR flow through documentation  
for cost models.doc

**Type:** Microsoft Word Document  
(application/msword)

**Encoding:** base64

**LSR flow through - March 9, 2001**

Significant effort has been directed to decreasing the manual handling of competitive local exchange carrier (CLEC) orders.

IMA releases 6.0 (December 2000), release 6.01 (February 2001), release 7.0 (April 2001), release 7.01 (June 2001) and release 8.0 (August 2001) in conjunction with FTS have made (will make) improvements in CLEC order flow through.

While the actual performance of the IMA flow through enhancements may take some time to achieve maximum efficiency, the 271 Benchmarks for OSS testing are being set at a relatively high level. IMA release 7.0 has been selected for testing. For 4 of the wholesale products for which Qwest is establishing SGAT pricing, the Benchmarks have been set as follows: 1) resale POTS = retail parity for POTS order flow through, 2) UNE-P = retail parity for POTS order flow through, 3) unbundled loop = 85% flow through and 4) shared loop = 85% flow through.

The actual experience of Qwest retail flow through ranges from 94.31% to 96.04%, therefore it is reasonable to use a 95% flow through rate where the benchmark is retail parity.

Since these system enhancements are intended to reduce the ISC manual handling of CLEC LSR to the reciprocal of the benchmark, it is reasonable to reflect the benchmark flow through rates in the development of the UNE ordering costs in the Qwest SGAT pricing of the affected products.

The following sections are examples of the business requirements that are being met with the system enhancements.

**NOTICE**

The information contained herein is confidential and proprietary and should not be disclosed to unauthorized persons. It is meant for use by authorized representatives of Qwest, only.

**INTERCONNECT SERVICE CENTER  
LOOP SERVICE REQUEST (LSR) PROCESS AND TIME ESTIMATES  
REVIEW  
MAY – JUNE 2001**

**SUBJECT MATTER EXPERTS PROVIDING INPUT TO REVIEW**

JOANNE GARRAMONE	STAFF MANAGER
LINDA MILES	STAFF MANAGER
SAMI HOOPER	STAFF MANAGER
MARLENE DIMANNA	STAFF MANAGER
MARK EARLY	STAFF MANAGER
CHERYLL GILLIAN	STAFF CONSULTANT – PROCESS
MARK ANDREWS	SERVICE DELIVERY COORDINATOR
MARY ANDERSON	SERVICE DELIVERY COORDINATOR
CRYSTAL SODERLUND	SERVICE DELIVERY COORDINATOR
DANIEL DEFFLEY	COST ANALYST

During May and June 2001 a number of conference calls were held to conduct a review of the Interconnect Service Center LSR (Loop Service Request) process and time to issue service orders. The purpose was to assure consistency with assumptions made when estimating times for processes that pertain to unbundled element products.

Key assumptions considered include:

- Forward looking process, 12-18 months if possible
- Time estimate based on average that does not include internal order flow problem solving, system down
- High skilled experience level of subject matter experts making time estimates
- Time estimates should not include supplements to initial order.

IMA flow through was addressed and flow through percentage weightings has been applied to the product that will have flow through.

DVD  
June 2001

**UNBUNDLED LOOP  
PROCESS, TIME ESTIMATES, PROBABILITIES**

Date: June 4, 2001  
From: Joann Garramone  
Title: Staff Manager-Service Delivery  
Interconnect Service Center

**INSTALL**

Work activity begins:	May include these tasks:	First (minutes)	Ea. Addl (minutes)	Probability of occurrence (%)
Receive LSR	Reviews LSR for completeness and accuracy, contractual entries (analyze request to determine co-provider, type of order and installation option)	3		100
	Verifies CFA or facility/circuit availability	1		5
	Exchange Info-Obtain Central Office, name, address and office type, Access Telephone Address Guide to obtain the central office address	4		100
	CPPD-lookup billing USOC's for co-provider	2		100
	Summary Bill List-Look up BTN#, tax code, and Bill date	2		100
	Analyzes request to determine the co-provider, type of order and installation option.	2.5		100
	Verify Qwest end user Customer Service Record to determine if order issuance is applicable to provide the product. If applicable, may include rejecting the LSR.	N/A		
	Determine if the end user has Qwest directory advertising	N/A		
	Determine if the end user has Qwest retail contract	N/A		
	Determine critical dates	1		100
Issue appropriate forms and/or orders	If there is either directory advertising or a retail contract or both, issue the order to remove the information from the account. An estimate of 50% of the accounts will have these.	3		50
Customer Request Management (CRM)	Populate required fields	3	3	100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	3		100
Issue service order	Input unbundled loop order into service order processor (manually typing and formatting of all order for billing and provisioning of the loop)	10	5	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100
Call Handling	Includes handling calls from other departments working the order.	5	1	60
Error on Service Order (ESOI)	Handling of problems on the LSR, provisioning issues such as conditioning, facility problems, cable & pair, and typing problems handled by the center.	5	1	8

**DISCONNECT**

Work activity begins:	May include these tasks:	Time used: (minutes)		
Receive LSR	Reviews LSR for completeness and accuracy, validate circuit belongs to the co-provider	3		100
	Verifies existing account (accesses CSR in BOSS/CARS) and obtains closing bill address if applicable	2		100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	2		100
Issue service order	Input disconnect of loop order into the service order processor (manually typing and formatting of all order for billing and provisioning of the loop)	10	5	100

Customer Request Management (CRM)	Populate required fields	3	3	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100

The times described in this chart are for all unbundled loops. These times are based on the projected savings with the order creation by IMA and increased experience level in the ISC. IMA does not create a complete order for all types of Unbundled Loop; some manual typing is required.

The Job Title and Job Function/Account Code for the individuals performing these tasks is:

SDC (Service Delivery Consultant) Job function code 6623.123

ISC Work Time for Unbundled Loops

**Key Assumptions:**

The times documented are forward looking.

The times documented here are average times.

They do not reflect problems encountered during the processing of the service order.

They do not include supplements to the initial order.

These estimates do not include any maintenance or repair time.

This process is as of today and the current functionality if IMA for ordering formatting.

IMA partial order creation. IMA will create a portion of the service order and may vary by Unbundled Loop product.

**TAB 19**

# **LOOP PROVISIONING CENTER (LPC)**

Utilizing the Facility Assignment Control System (FACS), ensures customer service order activity is provisioned with outside plant and central office facilities. FACS automatically processes the order with the facilities assignments.

Assignment Consultants are responsible for FACS component exception messages. A Request for Manual Assistance (RMA) is generated when all conditions for a customer service cannot be met. The assignment consultant resolves the RMA and the order is placed back into the system.

## **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.



**Subject: LPC info**

**Date: Wed, 16 May 2001 07:44:25 -0500**

**From: "Jeanette S. Cainjc" <jcain@uswest.com>**

**To: ddeffle@uswest.com**

Dan,


Better late than never. Sorry this took so long - no excuses, just busy. Everything has been concurred in by Diane Diebel's staff (LPC Process) so, feel very comfortable with this letter. No changes to times/dollars, they felt the Specials flow through rate was still a good average even though they have some months that hit the low 70ties.

I've changed some of the text as we've done more automation of RMAs.

Good Luck,

Jeanette

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 lpc01.doc	<b>Name:</b> lpc01.doc <b>Type:</b> Winword File (application/msword) <b>Encoding:</b> base64
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May 10, 2001

TO: Dan Deffley

FROM: Jeanette S. Cain  
IT Development-FACS  
(402) 422-8319

RE: Loop Provisioning Center (LPC) Service Order Flow Through Rates and Error Resolution Times

The LPC is responsible for ensuring customer service order activity is provisioned with outside plant and central office facilities in a timely and accurate manner. The Facility Assignment Control System (FACS) which is comprised of components; Service Order Analysis and Control (SOAC), Position Analysis Workstation (PAWS), Loop Facilities Assignment and Control (LFACS) and SWITCH is the provisioning application supported by the LPC. Assignment Consultants are the employees responsible for FACS component exception messages.

Brief descriptions of the FACS components are;

**SOAC** - maintains control and status information on all service order requests, as well as the input image and certain data resulting from processing. This system interfaces with the service order processor (SOP) and the other service provisioning systems. SOAC generates assignment requests to LFACS for outside plant and to SWITCH for central office facilities. After assignments are made, SOAC receives responses from LFACS and SWITCH, merges and formats this data into a service order assignment section and automatically returns it to the SOP. SOAC sends the formatted assignments to Work Force Administration/Dispatch Out (WFA/DO). For switched customer service requests SOAC sends the telephone number, office equipment and features to MARCH for translation to the physical switch.

**PAWS** - a software system linked to SOAC to receive messages on service order activity. The primary function of PAWS is to distribute exception messages to Assignment Consultants for resolution.

**LFACS** - maintains a mechanized inventory of outside plant facilities (i.e., customer addresses, cables, cable pairs, cross box and customer serving terminals, assembled loops and loop makeup) and assigns the outside plant facilities to assignment requests received from SOAC. LFACS also generates work sheets for cable transfers and reconcentrations. These activities are updated mechanically upon notification of completion. In addition, LFACS is used to make repair changes to working customer service.

**SWITCH** - used to inventory and assign central office switching equipment and related facilities i.e., range extension equipment, tie pairs and bridge lifters. Assignment requests are received from SOAC after successful LFACS assignments are made.

When all conditions for a customer service request cannot be met by the FACS components a Request for Manual Assistance (RMA) is generated. An RMA indicates service order processing has been stopped. The RMA identifies the reason the service order cannot be automatically processed, the FACS component that failed processing and provides an image of the customer service request.

All RMAs are sent from SOAC to PAWS. PAWS places the RMAs into a 'next work package' queue. Assignment Consultants using an intelligent work station (IWS) terminal access PAWS to retrieve RMAs for resolution. Assignment Consultants are trained to resolve all RMA types for all

service requests. Meaning, they can resolve exception messages for POTS, non-designed specials, specials and Wholesale product/services(s) service order activity. The objective for RMA resolution per Assignment Consultant is forty (40) per day.

U S WEST has developed two (2) applications which utilize artificial intelligence to resolve various RMAs. The applications are ARMAR (Automatic RMA Resolution) and APP (Automated Provisioning Platform). ARMAR is used to resolve working left-in RMAs. APP resolves RMAs which are a result of, exact match for address cannot be found, no available/compatible cable facilities, restricted terminals and loop makeup not available. These applications have reduced the number of RMAs sent to Assignment Consultants for resolution. Assignment Consultants will get these RMAs only if the artificial intelligence applications cannot resolve.

FACS flow through objectives have been established for, total customer service requests, special service orders and artificial intelligence (mechanical) applications. **The overall flow through objective** is based on total service order volume that includes; POTS, non-designed specials, coin, specials, Wholesale product/service(s) and artificial intelligence applications. **Individual flow through objectives** have been established for Special Services (orders provisioned in TIRKS) and artificial intelligence RMA resolution. **No individual flow through objectives** have been established for POTS, non-designed specials, coin or Wholesale product/service(s). The flow through and RMA objectives consider all order activity types: inward, outward and change as well as, single and multi-line requests. There is a single objective for Assignment Consultant RMA resolution, this objective does not differentiate between type of customer service requests (inward, outward, change) or number of lines per requests.

The following summarizes the flow through (FT) and Assignment Consultant objectives for 2001:

	<u>2001</u>
Overall FT*	85%
Special Services FT	60%
Mechanical FT	85%
Assignment Consultant	40 RMA's per day
Avg clearing time per RMA**	11.25 min

\*POTS flow through is included in this objective, there is no individual objective for POTS.

\*\*Average clearing time per RMA includes all activity types; inward, outward and change as well as single and multi-line requests.

The flow through and Assignment Consultant objectives as well as average clearing time are based on all service order activity types; inward, outward and change. Specific objectives have not been established for inward/change or outward activity

**Subject: Re: Loop NRC Process**

**Date:** Tue, 04 Dec 2001 11:20:22 -0600

**From:** Jeanette Cain <jcain@qwest.com>

**Organization:** Qwest Information Technologies

**To:** Daniel Deffley <ddeffle@qwest.com>, dgolleh@qwest.com

**CC:** rstrunk@qwest.com, jcain@qwest.com

Dan  
Doug

Thought I'd send you an email of what I said on the call this morning;

When U S WEST (Qwest) began work on Competitive Provisioning of Unbundled Loops we first looked at what order flow, POTS vs Designed, would be the most efficient/effective. When the decision was made to use the Designed flow we then looked at the provisioning systems, (SOAC, LFACS & SWITCH) involved and used by the LPC, to determine if enhancements were needed to obtain optimum flow through. There was never an intent to have 100% flow through, this is literally impossible but, we wanted to make certain we could get as high a percent as possible. This is the same practice we use for Qwest retail product deployment.

No major software changes were needed in the provisioning applications. SOAC required modifications to support order writing and product deployment. The changes were in SOAC site tables, some of these tables are updated by Telcordia (six week turnaround) and others are updated by Qwest FACS SYAD, to add FIDs and USOCs. LFACS and SWITCH required no changes.

The main reasons for fallout in the provisioning applications are;

- 1) invalid input from the CLEC e.g., end user address or product request
- 2) no facilities available that meet the qualifications for the CLEC product requested e.g., CLEC requests loop with no bridge tap or load coil and spare facilities do not meet this criteria
- 3) no compatible, spare facilities available
- 4) compatible facilities are automatically assigned however, there is no available loop makeup for the loop assigned (loop makeup is such items as; cable gauge, length, bridge tap, loading)

Actions taken by LPC when these conditions occurred;

- 1) return the order to the ISC for verification with Co-Provider
- 2 & 3) attempt to locate compatible facilities using the 11 step delayed order process. If unable to locate then enter the order in RTT (Referral Tracking Tool) as a delayed order (held order)
- 4) the error is automatically routed to the Design Advisory Group (DAG) to enter the loop makeup for the loop assigned to the order. Once the DAG enters the information the order will automatically be re-started through the systems and continue on to design.

The LPC would follow the same processes for fallout with designed orders for Retail,

the only exception is verification on input errors (#1) would not go to ISC but, to a Qwest market unit. There is a web site that tracks volume associated with these errors unfortunately, cannot differentiate between Wholesale or Retail counts. Further, the LPC doesn't care whether the fallout is Wholesale or Retail their measurement is to resolve in today out today fallout. If volume of fallout exceeds what LPC can handle in a day then, the fallout is prioritized by due date.

Jeanette S. Cain  
(402) 422-8319

Daniel Deffley wrote:

> Attached is the file I referred to on my voice message.  
>  
> The conference call is scheduled for 10:00 central, Tue, Dec. 4  
> Call in # 877-591-8687  
> Conf. id # 325-1015  
> Your attendance or a representative from your center is critical.  
>  
> Once again, the critical need is to defend Qwest nonrecurring cost with  
> regard to service order processing and provisioning of unbundled loop  
> and other elements. At this time the focus is on centers that touch the  
> order due to fall out or other manual provisioning requirements. ISC  
> issues will be addressed separately.  
>  
> Dan Deffley  
> Cost Analyst  
> 402-422-7281 (currently voice message only)  
>  
> -----  
> Name: AZ NRC QWEST-ATT ANALYSIS.xls  
> AZ NRC QWEST-ATT ANALYSIS.xls Type: Microsoft Excel Worksheet (application/vnd.ms-excel)  
> Encoding: base64

---

Jeanette Cain <[jcain@uswest.com](mailto:jcain@uswest.com)>  
Staff IT Analyst  
IT  
Software Development

**TAB 20**

## **DESIGN**

- Overall responsibility for RID (Record Issue Date) completion.
- Upholding Qwest design standards
- Assigns interoffice facilities and equipment at the circuit level
- Prepares and distributes WORD (Work Order Record Detail) including DLR (Design Layout Record).
- Ensures that TIRKS (Trunks Integrated Record Keeping System) designs meet the customer expectations.
- Escalates as necessary to ensure pre-RID dates are met.
- Advises Qwest sales forces or order originators of jeopardies as they are discovered.
- Maintains TIRKS database integrity by making design changes as they occur (i.e. cable pair changes, etc.)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

# DESIGN

## Unbundled Network Elements Local Interconnection Service Time Estimate, Service Order Work Activities Process

Kathy Platts – Staff Manager in the Designed Services Center (Des Moines) is the Subject Matter Expert that compiled and provided the time estimates, probabilities, and work activity descriptions for the Designer.

Kay Gruebel – Staff Manger, Designed Services Center (Des Moines) compiled and provided the time estimates and work activity descriptions for LIS, Unbundled Switching, and CCSAC elements.

Conference calls with Staff Managers and interviews with Design Technicians were conducted to review the work activities, assign time estimates, and assign flow through percentages for unbundled network elements.

Latest review made May, 2000

Subject Matter Experts contributing to results:

Kathy Platts – Staff Manager Designed Services, Des Moines

Dave Olson – Manger Designed Services Methods, Seattle

Denis Robison – Staff Manager Designed Services, Salt Lake City

Kay Gruebel – Staff Manager Designed Services, Des Moines

Design Technicians, Des Moines, Salt Lake City



## PRIVATE LINE SERVICES

Jan-99:
<b>SERVICE DELIVERY DESIGN ANALOG PROCESS</b>
Work Activity Descriptions
<b>INSTALL</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check Service Order Analysis and Control (SOAC) for Request for Manual Assistance (RMA's)
Verify A & Z Location in RDLOC
Access Trunks Integrated Record Keeping System (TIRKS) for Circuit
Check Order for Coordination Time (if not available)
Call Order Originator to ask for Coordination
<b>2. Generic Order Control (GOC) Order Logging</b>
Access TIRKS (Work Authorization (WA), PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged
<b>3. Enter WA Mask</b>
Check Availability of Facilities in TIRKS
Add Required Data to WA Screen
Verify that WA Screen Matches Service Order
Manually input WA Screen
<b>4. Prepare Loop/Design Related Information (DRI) Screen</b>
Verify that Loop Facilities Assignment and Control System (LFACS) Assignments & TIRKS Agree
Check information on LPADM, DRI, LOOP2 and CD Screen
Resolve Design Related Information (DRI) Errors
Resolve Local Loop Errors
Manually load the LPADM, DRI, LOOP2, and CD Screen
<b>5. Circuit Design</b>
Check GCNOTE or PCFLOW for error
Resolve Facility, Assignment or Equipment Issues with Communications Processor (CP)
Resolve Circuit Detail Errors
Build Circuit Detail Document
Jeopardize and Escalate Order
<b>6. Distribute Word document</b>
Distribute Design Document
Resolve any Distribution Errors
Issue Design Layout Record (DLR)
Issue Word Document
<b>DISCONNECT</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check SOAC for RMA's
Verify A & Z Location in RDLOC
Access TIRKS for Circuit
<b>2. GOC Order Logging</b>
Access TIRKS (WA, PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged

## PRIVATE LINE SERVICES

<b>3. Enter WA Mask</b>					
Verify Facilities in TIRKS					
Add Required Data to WA Screen					
Verify that WA Screen Matches Service Order					
Manually input WA Screen !					
<b>4. Disconnect Circuit</b>					
Check GCNOTE or PCFLOW for error					
Resolve Facility, Assignment or Equipment Issues with CP					
Resolve Circuit Detail Document					
Jeopardize and Escalate Order					
<b>5. Distribute Word Document</b>					
Distribute Design Document !					
Resolve any Distribution Errors					
Issue DLR					
Issue Word Document					

**TAB 21**

## **CENTRAL OFFICE**

Responsible for service connection in the central office and associated testing and administrative functions. Places cross-connects (jumpers), performs cross-office testing, and provides support to field installation and control center for circuit testing as required.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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- The time estimates do not include any maintenance or repair times.

Steve Hillery STAFF MANAGER  
MAY, 2000

Central Office Technician	Basic (Reuse) Installation	Each Additional	Basic with Performance Testing Installation	Each Additional	Coordinated Installation with Cooperative Testing	Each Additional	Coordinated Installation with No Testing	Each Additional	Basic Installation with Cooperative Testing First	Each Additional
	<b>2 WIRE OR 4 WIRE ANALOG LOOP 2 OR 4 WIRE NON-LOADED LOOP BRI ISDN CAPABLE LOOP</b>									
1. Analyze Order	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min
2. Complete Cross-connect	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min
3. Complete Loop Qualification	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
4. Record DVA Test Results	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
5. Post DVA work complete in WFA-DI	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
6. Analyze DD WFADJ work Request	NA	NA	2 min	1 min	2 min	1 min	NA	NA	2 min	1 min
7. Set up of DD test with I&M tech	NA	NA	2 min	1 min	2 min	1 min	NA	NA	2 min	1 min
8. Complete DD work status with CCTI	NA	NA	3 min	1 min	3 min	1 min	NA	NA	3 min	1 min
<b>DS1/DS3 CAPABLE LOOP</b>										
1. Analyze Order	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min
2. Complete Cross-connect	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min
3. Complete Loop Qualification	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
4. Record DVA Test Results	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
5. Post DVA work complete in WFA-DI	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
9. Perform Continuity Stress testing	NA	NA	10 min	10 min	10 min	10 min	NA	NA	NA	NA
7. Set up of DD test with I&M tech	NA	NA	2 min	1 min	2 min	1 min	NA	NA	NA	NA
8. Complete DD work status with CCTI	NA	NA	3 min	1 min	3 min	1 min	NA	NA	NA	NA
<b>Central Office Technician</b>	Disconnect Order	Each Additional								
<b>ALL LOOP TYPES</b>										
1. Analyze Order	5 min	5 min								
2. Remove Cross-connect	2.5 min	2.5 min								
3. Complete work request in WFA-DI	2 min	2 min								

## **Install**

### **1. Analyze work request.**

The COT accesses the WORD/CDOC document.

The COT determines if assignments/equipment requested by the work order are available

The COT verifies the Circuit Design is complete.

### **2. Complete Cross-Connect.**

The COT places the cross-connect(s) between the ICDF and the MDF or DSX frames. The type of loop ordered determines the number of cross-connect needed.

### **3. Perform Loop Qualification**

The COT performs a facility test with 77S or comparable test set.

### **4. Record Test Results**

The COT records the facility test results in the WFA-C OSSLOG

### **5. Post work request complete in WFA-DI.**

The COT accesses the DITSC screen in WFA-DI to complete the WFA-DI work request.

### **6. Analyze Due Date work request & call CCTI**

The COT analyzes WFADI work request for appointment time and tests then calls the CCT-I to notify they are ready to perform at location.

### **7. Set up for Due Date tests with I&M tech. \*2**

COT sets up test equipment for DD tests

### **8. Complete work request with CCT-I \*2**

The COT calls the CCT-I to notify the physical work and testing in the Central Office has been complete.

### **9. Complete Continuity Stress Testing**

Digital pattern testing end to end over facility-

\*2 = Orders with coordinated Due Date testing only.

## **Disconnect**

### **1. Analyze Order.**

The COT accesses the WORD/CDOC document.

The COT determines if assignments/equipment requested by the work order are accurate.

The COT verifies the Circuit Design notifies CCT-I of order inaccuracy.

### **2. Remove Cross-Connects.**

The COT removes the cross-connect(s) between the ICDF and the MDF or DSX frames. The type of loop ordered determines the number of cross-connect that will be removed.

### **3. Complete work request in WFA-DI.**

The COT accesses the DITSC screen in WFA-DI to complete the WFA-DI work request.

ACRONYM	DEFINITION
CCT-I	Customer Communication Technician-Implementor
CDOC	CI Prep Document (Central Office version of the WORD document)
CORAC	Central Office Resource Allocation Center
COT	Central Office Technician
CRON	Automated order load in WFA-DI
CWL	Circuit Work Location (each Central Office location involved on the order)
DD	Due Date Critical Date
DITSC	An Installation or Trouble Work Request screen in WFA-DI
DOSOI	Service Order Installation screen in WFA-DO
DS I&M Technician	Designed Services Installation and Maintenance Technician
DSX	Digital Services Cross-Connect
DVA	Designed, Verified, and Assigned Critical Date
I&M	Installation and Maintenance field forces
ICDF	Interconnector Distributing Frame
LNO	Local Network Operation (typically includes the Central Office and I&M work forces)
LRAC	Load Resource Administration Center
MDF	Main Distributing Frame
OCO	Overall Control Office
OSSCN	Circuit Notes screen in WFA-C
OSSCWL	Circuit Work Location screen in WFA-C
OSSLOG	Work Request Log screen in WFA-C
OSSLST	Order List screen in WFA-C
OSSOI	Order Installation screen in WFA-C
OWDDOC	WORD Document screen in WFA-C
SCR	Screener Critical Date
SDC	Service Delivery Coordinator
USW	U S WEST
WFA-C	Work Force Administration-Control Module
WFA-DI	Work Force Administration-Dispatch In Module
WFA-DO	Work Force Administration-Dispatch Out Module
WORD Document	Work Order Record Detail Document

**TAB 22**



## **IMPLEMENTOR**

Has overall control responsibility for provisioning, maintaining, coordination and testing of designed services.

Contacts other centers/technicians for the coordinated effort to complete service order activity requirements.

Tests with central office, field installation personnel as necessary.

Provides test results to customer.

Notify customer of work completed

Complete order in required systems (Work Force Administration)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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**Customer Communications  
Technician - Implementor**

**Install**

**1. Screen WFA-C for Order accuracy.**

The CCT-I accesses the WFA-C OSSSLST (Order List) screen to examine and prioritize order load by Critical Date.

The CCT-I accesses the WORD document on the OWDDOC (WORD Document) screen to examine work request.

The CCT-I locates the installation option of the work request on the WORD document and determines if additional work steps must be created for the Central Office Technician (i.e., DD work activities).

If the order request is for a Coordinated Installation Option, the CCT-I determines the "Appointment Time".

If No "Appointment Time" has been specified, the CCT-I contacts the Service Delivery Coordinator (SDC) via telephone to obtain an "Appointment Time".

Once the "Appointment Time" has been determined, the CCT-I builds the Central Office DD work request on the WFA-C OSSCWL (Circuit Work Location) screen specifying the requested "Appointment Time".

The CCT-I updates the WFA-DO DOSOI (Service Order Installation) screen with the "Appointment Time".

The CCT-I notifies the CORAC and LRAC of the Coordinated work request via a telephone call.

The CCT-I examines the Circuit Details portion of the WORD document for circuit design completeness.

The CCT-I sets any other pertinent Calendar (CAL) events on the WFA-C OSSSLST (Order List) screen.

The CCT-I complete the SCR Critical Date on the WFA-C OSSOI (Order Installation) screen.

**2. Verify LNO completion.**

The CCT-I verifies the LNO (Central Office and/or I&M technician has completed the physical work required on the work request for DVA and DD. Typically, DVA will post automatically at the item level once all of the DVA dates have been met at the Circuit Work Location (CWL) level.

If CWLs have not been completed by the DVA date, the CCT-I notifies the Central Office to complete the CWLs.

If the physical work cannot be completed, the CCT-I posts a jeopardy against the DVA date. The current Designed Services Jeopardy process is then followed.

If a Coordinated Cut has been requested, the CCT-I will call the Co-Provider to receive and "OK" to begin work.

If the work cannot be completed on DD because the Co-Provider is not ready, the CCT-I places a "C" code jeopardy against the order. The current Designed Services Jeopardy process is then followed.

If the work cannot be completed on DD because of a USW problem, the CCT-I will post the appropriate jeopardy code against the DD. The current Designed Services Jeopardy process is then followed.

The CCT-I makes the appropriate remark entries into the WFA-C OSSLOG (Work Request Log).

**3A. Monitor Performance Testing.**

The CCT-I monitors and records the test results on the WFA-C OSSCN (Circuit Notes) screen. These test results are obtained by the Central Office technician and the DS I&M technician testing the newly provisioned circuit. The tests performed are listed in the Test Requirement document attached.

**3B. Complete Performance Testing.**

## Customer Communications Technician - Implementor

In cases where the CCT-I is able to test, the testing is performed with the DS I&M Technician. The CCT-I records the test results on the WFA-C OSSCN (Circuit Notes) screen. The tests performed are listed in the Test Requirement document attached.

### 4. Coordinate Cooperative Testing

The CCT-I acts as the central contact between the DS I&M technician and the Co-Provider. The CCT-I notes the tests performed and enters the result information on the WFA-C OSSCN (Circuit Notes) screen.

The CCT-I records any pertinent remarks on the WFA-C OSSLOG (Work Request Log).

### 5. Notify Co-Provider of order completion.

The CCT-I notifies the Co-Provider that the work request is completed.

The CCT-I informs the Co-Provider of any additional charges that will apply.

The CCT-I provides required test result information to the Co-Provider.

The CCT-I records the Co-Provider order completion contact information on the WFA-C OSSLOG (Work Request Log).

### 6. Post order complete in WFA-C.

The CCT-I posts the Due Date complete on the WFA-C OSSOI (Order Installation) screen.

The CCT-I completes any additional remarks on the WFA-C OSSLOG (Work Request Log).

The CCT-I completes any required electronic billing or rebates in WFA-C.

## Disconnect

### 1. Screen WFA-C for Order accuracy.

Screen OSSLST

Verify information on WORD document

Refer WORD document back to Designer if not accurate

Check for Co-Provider work locations involved on order

Enter note if Co-Provider involved on OSSCN

Check for remote test capability and hand-off to Designer or LNO if appropriate

Check to see if item is loaded in WFA-DUDO

Assign Critical Dates

Enter name and number on DOISWR

### 2. Contact Co-Provider

Notify customer work is complete

Add pertinent notes to OSSCN screen

If customer is not available, enter the following information on the OSSOI screen

No customer contact

Telephone Number called

### 3. Complete circuit in WFA-C

Check WFA-C OSSLST for critical events

Check DISP for PRE status

Jeopardize and escalate to accommodate customer's need

Add additional billing charges

Complete order in WFA-C

Perform required tests

Contact Designer if required

**TAB 23**

# **CENTRAL OFFICE RESOURCE ADMINISTRATION CENTER (CORAC)**

Utilizes Work Force Administration/Dispatch In (WFA/DI) to build installation daily service order logs. Monitors and logs service order progress and completion in WFA/DI.

Re-loads and re-schedules service orders that cannot be completed.

## **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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**Subject:** Re: looptimefiles

**Date:** Tue, 09 May 2000 16:08:27 -0700

**From:** "Carolyn Mills" <camills@uswest.com>

**Organization:** U S WEST

**To:** "Deffley, Daniel" <ddeffle@uswest.com>



MAY, 2000

Caolyn Mills - Staff Manager

## **LOAD RESOURCE ADMINISTRATION CENTER**

Work Activity Descriptions

### **INSTALL**

#### **1. Screen Work Force Administration Dispatch Out**

Screening DOLST (WFA-DO WORK LIST)

Validate the load to ensure PLD status in WFA/DO for loadable/dispatchable work item

Match & Merge work items (resolve all exceptions in WFADO fallout and exceptions)

Monitor (DOLST) continuously for new work items

Balance the workload. Move resources when necessary to meet critical dates

#### **Load work request to Technician**

Manual build Technician Load

Prioritize Technician Load

Dispatch Technician

Put notes in OSSLOG

#### **Close-out Work Request**

Create handoff ticket to other department when apply(handoff to Construction or Cable Maintenance)

Put notes in OSSLOG

Delete or Add USOC when apply

Jeopardize and escalate

### **DISCONNECT**

Screen Order

## **CENTRAL OFFICE RESOURCE ADMINISTRATION CE (CORAC)**

Work Activity Descriptions

### **INSTALL**

#### **1. Screen Work Force Administration Dispatch In**

Monitor the (DITTWL) screen for Provisioning work steps

Balance the workload . Move resources when necessary to meet critical dates

#### **Load work request to Technician**

CRON'd fallout (manual load provisioning orders)

Dispatch Technician

Prioritize Technician Load (for appointment)

Note WFAC OSSLOG via OSSRMK

#### **Close-out Work Request**

Create handoff ticket (handoff to another Central Office or Central Office Technician)

Note WFAC OSSLOG via OSSRMK

Jeopardize and Escalation



**TAB 24**

## **LOCAL RESOURCE ADMINISTRATION CENTER (LRAC)**

Utilizes Work Force Administration/Dispatch Out (WFA/DO) to build installation daily service order logs. Monitors and logs service order progress and completion in WFA/DO.

Re-loads and re-schedules service orders that cannot be completed.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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LRAC TIMES

FOR ALL UNBUNDLED ELEMENT ORDERS THAT REQUIRE DISPATCH	
1 Screen Order	2 min
2. Load work request to Technician	5 min
3 Closeout work request with Technician	3 min
SOURCE:	
Carolin Mills - Staff Manager	
Apr-00	

**LRAC PROCESS DETAIL**

**Install**

**1. Screen order.**

The LRAC Load Specialist reviews the work request for any special instructions on the field dispatch.

**2. Load work request to DS I&M Technician.**

The LRAC Load Specialist loads the work request to the DS I&M Technician in WFA-DO.

**3. Close work request with DS I&M Technician.**

The Load Specialist receives a call from the DS I&M Technician.

The Load Specialist updates WFA-DO with any pertinent information about the order completion.

**TAB 25**

# INSTALLATION

Performs necessary field work on new orders and changes to existing service including:

- Travel to customer premises
- Cross-connect activity at feeder plant to distribution plant field locations
- Customer premises work activities to connect circuit at the network interface
- Circuit testing as required
- Order completion with LRAC

## TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

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- The time estimates do not include any maintenance or repair times.

LOOP TIMES

DS I&M Technician	Basic Installation First	Each Additional	Basic Installation with Performance Testing First	Each Additional	Coordinated Installation with Cooperative Testing	Each Additional	Coordinated Installation without Testing	Each Additional	Basic Installation with Cooperative Testing First	Each Additional	Coordinated Installation/Cooperative Testing - No Dispatch	Each Additional
	<b>2 WIRE OR 4 WIRE ANALOG LOOP</b>											
<b>2 WIRE OR 4 WIRE ANALOG LOOP NONLOADED</b>												
<b>BRI ISDN CAPABLE LOOP</b>												
<b>DSL CAPABLE LOOP</b>												
1. Analyze order	NA	NA	1 min	0 min	1 min	0 min	NA	NA	1 min	0 min	NA	NA
2. Travel to end user premises	NA	NA	21 min	0 min	21 min	0 min	NA	NA	21 min	0 min	NA	NA
3. Complete AP/SAC Point wiring (20%)	NA	NA	15 min	10 min	13 min	10 min	NA	NA	13 min	10 min	NA	NA
4. Complete Service Terminal work (20%)	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA
5. Customer contact	NA	NA	5 min	0 min	5 min	0 min	NA	NA	5 min	0 min	NA	NA
6. Contact CCT-I to work order	NA	NA	3 min	0 min	3 min	0 min	NA	NA	3 min	0 min	NA	NA
7. Coordinate with parties to work order	NA	NA	NA	NA	20 min	NA	NA	NA	NA	NA	NA	NA
8. Complete Performance/Conformance Testing	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA
9. Complete work request with Load Specialist	NA	NA	3 min	1 min	3 min	1 min	NA	NA	3 min	1 min	NA	NA
<b>DS1/DS3 CAPABLE LOOP</b>												
1. Analyze order	NA	NA	1 min	0 min	1 min	0 min	NA	NA	1 min	0 min	NA	NA
2. Travel to end user premises	NA	NA	21 min	0 min	21 min	0 min	NA	NA	21 min	0 min	NA	NA
3. Complete AP/SAC Point wiring (20%)	NA	NA	15 min	10 min	13 min	10 min	NA	NA	13 min	10 min	NA	NA
4. Complete Service Terminal work (20%)	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA
5. Customer contact	NA	NA	5 min	0 min	5 min	0 min	NA	NA	5 min	0 min	NA	NA
6. Contact CCT-I to work order	NA	NA	3 min	0 min	3 min	0 min	NA	NA	3 min	0 min	NA	NA
7. Coordinate with parties to work order	NA	NA	NA	NA	20 min	NA	NA	NA	20 min	NA	NA	NA
8. Complete Performance/Conformance Testing	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA
9. Complete work request with Load Specialist	NA	NA	3 min	1 min	3 min	1 min	NA	NA	3 min	1 min	NA	NA
ALAN BRAEGER - STAFF MANAGER												
BILL RODRIGUEZ - STAFF MANAGER												
MAY, 2000												

Alan Braegger, Staff Manager, NCS  
Bill Rodriguez, Staff Manager, NCS  
May, 2000

## **Install**

### **1. Analyze work request.**

The I&M accesses the WORD/CDOC document.

The I&M Technician determines what work requirements are associated to the assignment or equipment to the work order.

The I&M verifies the Circuit Design is accurate.

### **2. Travel time to end user premises**

Includes time to drive to Access Point or Serving Area Interface and End User premises including service terminal as required.

### **3. Access Point/Serving Area Interface work (as required)**

Travel to AP/SAI Box.

Test and verify facilities are acceptable for service.

Place Cross-Connect.

### **4. Service Terminal (as required)**

Travel to Service Terminal

Test and verify the facilities (Ω) and Buried Service Wire.

Place Drop Wire termination.

### **5. Customer contact**

Notify customer at premises of work to be performed.

### **6. Contact CCT-I to work order**

Installer contacts implementor to work order.

### **7. Coordinate with Implementor, COT, and CLEC**

Time spent to gather all parties involved to work the order(s).

### **8. Perform Required Testing**

Perform technical specification/core test as required.

Includes cooperative testing with CLEC as required.

Does not include additional cooperative testing that may be requested by CLEC.

### **9. Close work item with Dispatch.**

Contact LRAC and close order.



**TAB 26**

# **INTERCONNECT SERVICE CENTER**

Serves as the primary order provisioning contact for Competitive Local Exchange Carrier (CLEC) customers who purchase unbundled network elements products and services (i.e. Number Portability, Unbundled Loop, Unbundled Lineside Port, Resale) from Qwest.

The center provides end-to-end order coordination from request through order completion and serves as the primary liaison for the customer for all downstream organizations.

## **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**INTERCONNECT SERVICE CENTER  
LOOP SERVICE REQUEST (LSR) PROCESS AND TIME ESTIMATES REVIEW  
MAY-JUNE 2001**

**SUBJECT MATTER EXPERTS PROVIDING INPUT TO REVIEW**

JOANNE GARRAMONE	STAFF MANAGER
LINDA MILES	STAFF MANAGER
SAMI HOOPER	STAFF MANAGER
MARLENE DIMANNA	STAFF MANAGER
MARK EARLY	STAFF MANAGER
CHERYLL GILLILAN	STAFF CONSULTANT - PROCESS
MARK ANDREWS	SERVICE DELIVERY COORDINATOR
MARY ANDERSON	SERVICE DELIVERY COORDINATOR
CRYSTAL SODERLUND	SERVICE DELIVERY COORDINATOR
DANIEL DEFFLEY	COST ANALYST

During May and June 2001 a number of conference calls were held to conduct a review of the Interconnect Service Center LSR (Loop Service Request) process and time to issue service orders. The purpose was to assure consistency with assumptions made when estimating times for processes that pertain to unbundled element products.

Key assumptions considered include:

Forward looking process, 12-18 months if possible.

Time estimate based on average that does not include internal order flow problem solving, system down  
Highly skilled experience level of subject matter experts making time estimates.

Time estimates should not include supplements to initial order.

IMA flow through was addressed and flow through percentage weightings have been applied for product that will have flow through.

DVD JUNE 2001

**UNBUNDLED-LOOP  
PROCESS, TIME ESTIMATES, PROBABILITIES**

Date: June 4, 2001  
 From: Joann Garramone  
 Title: Staff Manager-Service Delivery  
 Interconnect Service Center

**INSTALL**

Work activity begins:	May include these tasks:	First (minutes)	Ea. Addl (minutes)	Probability of occurrence (%)
Receive LSR	Reviews LSR for completeness and accuracy, contractual entries (analyze request to determine co-provider, type of order and installation option)	3		100
	Verifies CFA or facility/circuit availability	1		5
	Exchange Info-Obtain Central Office, name, address and office type, Access Telephone Address Guide to obtain the central office address	4		100
	CPPD-lookup billing USOC's for co-provider	2		100
	Summary Bill List-Look up BTN#, tax code, and Bill date	2		100
	Analyzes request to determine the co-provider, type of order and installation option.	2.5		100
	Verify Qwest end user Customer Service Record to determine if order issuance is applicable to provide the product. If applicable, may include rejecting the LSR.	N/A		
	Determine if the end user has Qwest directory advertising	N/A		
	Determine if the end user has Qwest retail contract	N/A		
	Determine critical dates	1		100
Issue appropriate forms and/or orders	If there is either directory advertising or a retail contract or both, issue the order to remove the information from the account. An estimate of 50% of the accounts will have these.	3		50
Customer Request Management (CRM)	Populate required fields	3	3	100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	3		100
Issue service order	Input unbundled loop order into service order processor (manually typing and formatting of all order for billing and provisioning of the loop)	10	5	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100
Call Handling	Includes handling calls from other departments working the order.	5	1	60
Error on Service Order (ESOI)	Handling of problems on the LSR, provisioning issues such as conditioning, facility problems, cable & pair, and typing problems handled by the center.	5	1	8

**DISCONNECT**

Work activity begins:	May include these tasks:	Time used: (minutes)		
Receive LSR	Reviews LSR for completeness and accuracy, validate circuit belongs to the co-provider	3		100
	Verifies existing account (accesses CSR in BOSS/CARS) and obtains closing bill address if applicable	2		100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	2		100
Issue service order	Input disconnect of loop order into the service order processor (manually typing and formatting of all order for billing and provisioning of the loop)	10	5	100

Customer Request Management (CRM)	Populate required fields	3	3	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100

The times described in this chart are for all unbundled loops. These times are based on the projected savings with the order creation by IMA and increased experience level in the ISC. IMA does not create a complete order for all types of Unbundled Loop; some manual typing is required.

The Job Title and Job Function/Account Code for the individuals performing these tasks is:

SDC (Service Delivery Consultant) Job function code 6623.123

ISC Work Time for Unbundled Loops

**Key Assumptions:**

The times documented are forward looking.

The times documented here are average times.

They do not reflect problems encountered during the processing of the service order.

They do not include supplements to the initial order.

These estimates do not include any maintenance or repair time.

This process is as of today and the current functionality if IMA for ordering formatting.

IMA partial order creation. IMA will create a portion of the service order and may vary by Unbundled Loop product.

**CONVERSIONS - Private Line to Unbundled Loop, EEL, LMC  
PROCESS, TIME ESTIMATES, PROBABILITIES**

Date: 6-13-2001

From: Sami Hooper

Title: Staff Manager-Service Delivery

Interconnect Service Center

**INSTALL**

Work activity begins:	May include these tasks:	First (minutes)	Ea. Addl (minutes)	Probability of occurrence (%)
Receive LSR	Reviews LSR for completeness and accuracy, contractual entries (analyze request to determine co-provider, type of order and installation option)	3		100
	Verifies CFA or facility/circuit availability	N/A	N/A	100
	Exchange Info-Obtain Central Office, name, address and office type, Access Telephone Address Guide to obtain the central office address and validate end user address	4		100
	CPPD-lookup billing USOC's for co-provider	2		100
	Summary Bill List-Look up BTN#, tax code, and Bill date	2		100
	Analyzes request to determine the co-provider, type of order and installation option.	N/A		
	Verify Qwest end user Customer Service Record to determine if order issuance is applicable to provide the product. If applicable, may include rejecting the LSR.	2		100
	Determine if the end user has Qwest directory advertising	N/A		
	Determine if the end user has Qwest retail contract	2		100
	Determine critical dates	1		100
Issue appropriate forms and/or orders	If there is either directory advertising or a retail contract or both, issue the order to remove the information from the account. An estimate of 50% of the accounts will have these.	N/A		
Customer Request Management (CRM)	Populate required fields	3	3	100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	3	3	100
Issue service order	Input order into service order processor (manually typing and formatting of all order for billing and provisioning )	10	5	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100
Call Handling	Includes handling calls from other departments working the order.	NA	NA	
Error on Service Order (ESOI)	Handling of problems on the LSR, provisioning issues such as conditioning, facility problems, cable & pair, and typing problems handled by the center.	NA	NA	

**TAB 27**

## **DESIGN**

- Overall responsibility for RID (Record Issue Date) completion.
- Upholding Qwest design standards
- Assigns interoffice facilities and equipment at the circuit level
- Prepares and distributes WORD (Work Order Record Detail) including DLR (Design Layout Record).
- Ensures that TIRKS (Trunks Integrated Record Keeping System) designs meet the customer expectations.
- Escalates as necessary to ensure pre-RID dates are met.
- Advises Qwest sales forces or order originators of jeopardies as they are discovered.
- Maintains TIRKS database integrity by making design changes as they occur (i.e. cable pair changes, etc.)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.



COST ELEMENT					
DS1, DS3 CAPABLE LOOP FEEDER SUBLOOP	DS1/DS3	% MANUAL PROB			
<b>DESIGN</b>					
<b>WORK ACTIVITY</b>					
<i>INSTALL</i>					
ORDER HANDLING/SCREENING	5	0.20			
GOC ORDER LOG	6	0.20			
ENTER WA MASK	5	0.80			
PREP LOOP INPUT/DRI	15	0.75			
CIRCUIT DESIGN	30	1.00			
DISTRIBUTE WORD DOC	2	0.90			
<i>DISCONNECT</i>					
ORDER HANDLING/SCREENING	5	0.10			
GOC ORDER LOG	6	0.10			
ENTER WA MASK	5	0.10			
DISCONNECT CIRCUIT	5	0.10			
DISTRIBUTE WORD DOC	2	0.10			
<b>NOTE:</b>					
The time estimates and probability percentages listed are forward-looking.					
These work activities are required to process a service request that falls out of the TIRKS system for mechanized design.					
These are average times. The times assume the technician will not encounter problems during the manual process necessary to process the service request.					
<b>SOURCE:</b>					
KATHY PLATTS					
DESIGN CENTER STAFF					
1/99					
MARCH 2000 Per Kathy Platts, these times and probabilities are appropriate for high cap loop and feeder subloop order processing.					

## PRIVATE LINE SERVICES

<b>2. Enter WA Mask</b>
Verify Facilities in TIRKS
Add Required Data to WA Screen
Verify that WA Screen Matches Service Order
Manually input WA Screen
<b>4. Disconnect Circuit</b>
Check GCNOTE or PCFLOW for error
Resolve Facility, Assignment or Equipment Issues with CP
Resolve Circuit Detail Document
Jeopardize and Escalate Order
<b>5. Distribute Word Document</b>
Distribute Design Document
Resolve any Distribution Errors
Issue DLR
Issue Word Document

**TAB 28**

## **CENTRAL OFFICE**

Responsible for service connection in the central office and associated testing and administrative functions. Places cross-connects (jumpers), performs cross-office testing, and provides support to field installation and control center for circuit testing as required.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**COT TIMES**

Steve Hilleary L. STAFF MANAGER  
MAY, 2000

<b>Central Office Technician</b>	Basic (Reuse) Installation
	Each Additional
	Basic with Performance Testing Installation
	Each Additional
	Coordinated Installation with Cooperative Testing
	Each Additional
	Coordinated Installation with No Testing
	Each Additional

**DS1, DS3 CAPABLE LOOP**

**DS1 FEEDER SUBLOOP**

1. Analyze Order	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min
2. Complete Cross-connect (2 - mdf & icdf)	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min
3. Complete Loop Qualification	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
4. Record DVA Test Results	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
5. Post DVA work complete in WFA-DI	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
9. Perform Continuity Stress testing	NA	NA	10 min	10 min	10 min	10 min	NA	NA	10 min	10 min
7. Set up of DD test with I&M tech	NA	NA	2 min	1 min	2 min	1 min	NA	NA	2 min	1 min
8. Complete DD work status with CCTI	NA	NA	5 min	1 min	5 min	1 min	NA	NA	5 min	1 min

1. This assumes reuse of a qualified digital loop. Loop Qualification tests are performed for all loops not previously qualified for digital service.

<b>Central Office Technician</b>	Disconnect Order
	Each Additional

**ALL LOOP TYPES**

1. Analyze Order	5 min	5 min
2. Remove Cross-connect (2-mdf & icdf)	2.5 min	2.5 min
3. Complete work request in WFA-DI	2 min	2 min

## Install

### 1. Analyze work request.

The COT accesses the WORD/CDOC document.

The COT determines if assignments/equipment requested by the work order are available

The COT verifies the Circuit Design is complete.

### 2. Complete Cross-Connect.

The COT places the cross-connect(s) between the ICDF and the MDF or DSX frames. The type of loop ordered determines the number of cross-connect needed.

### 3. Perform Loop Qualification

The COT performs a facility test with 77S or comparable test set.

### 4. Record Test Results

The COT records the facility test results in the WFA-C OSSLOG

### 5. Post work request complete in WFA-DI.

The COT accesses the DITSC screen in WFA-DI to complete the WFA-DI work request.

### 6. Analyze Due Date work request & call CCTI

The COT analyzes WFADI work request for appointment time and tests then calls the CCT-I to notify they are ready to perform at location.

### 7. Set up for Due Date tests with I&M tech. \*2

COT sets up test equipment for DD tests

### 8. Complete work request with CCT-I. \*2

The COT calls the CCT-I to notify the physical work and testing in the Central Office has been complete.

### 9. Complete Continuity Stress Testing

Digital pattern testing end to end over facility

\*2 = Orders with coordinated Due Date testing only

## Disconnect

### 1. Analyze Order.

The COT accesses the WORD/CDOC document.

The COT determines if assignments/equipment requested by the work order are accurate.

The COT verifies the Circuit Design notifies CCT-I of order inaccuracy.

### 2. Remove Cross-Connects.

The COT removes the cross-connect(s) between the ICDF and the MDF or DSX frames. The type of loop ordered determines the number of cross-connect that will be removed.

### 3. Complete work request in WFA-DI.

The COT accesses the DITSC screen in WFA-DI to complete the WFA-DI work request.

## ACRONYM

## DEFINITION

CCT-I	Customer Communication Technician-Implementor
CDOC	CI Prod Document (Central Office version of the WORD document)
COFAC	Central Office Resource Allocation Center
COT	Central Office Technician
CRON	Automated order load in WFA-DI
CWL	Circuit Work Location (each Central Office location involved on the order)
DD	Due Date Critical Date
DITSC	An Installation or Trouble Work Request screen in WFA-DI
DOSOI	Service Order installation screen in WFA-DO
DS I&M Technician	Designed Services Installation and Maintenance Technician
DSX	Digital Services Cross-Connect
DVA	Designed, Verified, and Assigned Critical Date
I&M	Installation and Maintenance field forces
IDDF	Intracommunicator Distributing Frame
LNO	Local Network Operation (typically includes the Central Office and I&M work forces)
LRAC	Load Resource Administration Center
MDF	Main Distributing Frame
OCO	Overall Control Office
OSSCN	Circuit Notes screen in WFA-C
OSSCWL	Circuit Work Location screen in WFA-C
OSSLG	Work Request Log screen in WFA-C
OSSLST	Order List screen in WFA-C
OSSOI	Order Installation screen in WFA-C
OWDDOC	WORD Document screen in WFA-C
SCR	Screening Critical Date
SDC	Service Delivery Coordinator
USW	US WEST
WFA-C	Work Force Administration-Control Module
WFA-DI	Work Force Administration-Dispatch In Module
WFA-DO	Work Force Administration-Dispatch Out Module
WORD Document	Work Order Record Detail Document

**TAB 29**



## **IMPLEMENTOR**

Has overall control responsibility for provisioning, maintaining, coordination and testing of designed services.

Contacts other centers/technicians for the coordinated effort to complete service order activity requirements.

Tests with central office, field installation personnel as necessary.

Provides test results to customer.

Notify customer of work completed

Complete order in required systems (Work Force Administration)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.



## Install

### 1. Screen WFA-C for Order accuracy.

The CCT-I accesses the WFA-C OSSLST (Order List) screen to examine and prioritize order load by Critical Date.

The CCT-I accesses the WORD document on the OWDDOC (WORD Document) screen to examine work request.

The CCT-I locates the installation option of the work request on the WORD document and determines if additional work steps must be created for the Central Office Technician (i.e., DD work activities).

If the order request is for a Coordinated Installation Option, the CCT-I determines the "Appointment Time".

If No "Appointment Time" has been specified, the CCT-I contacts the Service Delivery Coordinator (SDC) via telephone to obtain an "Appointment Time".

Once the "Appointment Time" has been determined, the CCT-I builds the Central Office DD work request on the WFA-C OSSCWL (Circuit Work Location) screen specifying the requested "Appointment Time".

The CCT-I updates the WFA-DO DOSOI (Service Order Installation) screen with the "Appointment Time".

The CCT-I notifies the CORAC and LRAC of the Coordinated work request via a telephone call.

The CCT-I examines the Circuit Details portion of the WORD document for circuit design completeness.

The CCT-I sets any other pertinent Calendar (CAL) events on the WFA-C OSSLST (Order List) screen.

The CCT-I complete the SCR Critical Date on the WFA-C OSSOI (Order installation) screen.

### 2. Verify LNO completion.

The CCT-I verifies the LNO (Central Office and/or I&M technician has completed the physical work required on the work request for DVA and DD. Typically, DVA will post automatically at the item level once all of the DVA dates have been met at the Circuit

If CWLs have not been completed by the DVA date, the CCT-I notifies the Central Office to complete the CWLs.

If the physical work cannot be completed, the CCT-I posts a jeopardy against the DVA date. The current Designed Services Jeopardy process is then followed.

If a Coordinated Cut has been requested, the CCT-I will call the Co-Provider to receive and "OK" to begin work.

If the work cannot be completed on DD because the Co-Provider is not ready, the CCT-I places a "C" code jeopardy against the order. The current Designed Services Jeopardy process is then followed.

If the work cannot be completed on DD because of a USW problem, the CCT-I will post the appropriate jeopardy code against the DD. The current Designed Services Jeopardy process is then followed.

The CCT-I makes the appropriate remark entries into the WFA-C OSSLOG (Work Request Log).

### 3A. Monitor Performance Testing.

The CCT-I monitors and records the test results on the WFA-C OSSCN (Circuit Notes) screen. These test results are obtained by the Central Office technician and the DS I&M technician testing the newly provisioned circuit. The tests performed are listed i

### 3B. Complete Performance Testing.

In cases where the CCT-I is able to test, the testing is performed with the DS I&M Technician. The CCT-I records the test results on the WFA-C OSSCN (Circuit Notes) screen. The tests performed are listed in the Test Requirement document attached.

### 4. Coordinate Cooperative Testing

The CCT-I acts as the central contact between the DS I&M technician and the Co-Provider.

The CCT-I notes the tests performed and enters the result information on the WFA-C OSSCN (Circuit Notes) screen.

The CCT-I records any pertinent remarks on the WFA-C OSSLOG (Work Request Log).

### 5. Notify Co-Provider of order completion.

The CCT-I notifies the Co-Provider that the work request is completed.

The CCT-I informs the Co-Provider of any additional charges that will apply.

The CCT-I provides required test result information to the Co-Provider.

The CCT-I records the Co-Provider order completion contact information on the WFA-C OSSLOG (Work Request Log).

#### 6. Post order complete in WFA-C.

The CCT-I posts the Due Date complete on the WFA-C OSSOI (Order Installation) screen.

The CCT-I completes any additional remarks on the WFA-C OSSLOG (Work Request Log).

The CCT-I completes any required electronic billing or rebates in WFA-C.

### Disconnect

#### 1. Screen WFA-C for Order accuracy.

Screen OSSLST

Verify information on WORD document

Refer WORD document back to Designer if not accurate

Check for Co-Provider work locations involved on order

Enter note if Co-Provider involved on OSSCN

Check for remote test capability and hand-off to Designer or LNO if appropriate

Check to see if item is loaded in WFA-DI/DO

Assign Critical Dates

Enter name and number on DOISWR

#### 2. Contact Co-Provider

Notify customer work is complete

Add pertinent notes to OSSCN screen

If customer is not available, enter the following information on the OSSOI2 screen

No customer contact

Telephone Number called

#### 3. Complete circuit in WFA-C

Check WFA-C OSSLST for critical events

Check DISP for PRE status

Jeopardize and escalate to accommodate customer's need

Add additional billing charges

Complete order in WFA-C

Perform required tests

Contact Designer if required

**Subject: Re: [Fwd: Collocation Transitions]**

**Date: Thu, 30 May 2002 14:33:50 -0500**

**From: Deni Toye <dtoye@qwest.com>**

**Organization: Qwest Corporation**

**To: Daniel Deffley <ddeffle@qwest.com>**

Yes, if it is designed service, the Implementor would be the one to do the documentation and completion of the WFA order.

Deni

Daniel Deffley wrote:

> D,  
> I'm ok with that for the collo study. That one is done. Now I'm referring to a  
> Private Line to Unbundled Element conversions. Its mostly work in the ISC to  
> change billing but was told at one time that the Design Center will have a small  
> amount of work to do on these orders. Again, verifying which tech does this work.  
> I currently show a designer but think it should be the implementor.

> Thanks,

> DD

> Deni Toye wrote:

> > Hi Dan,

> > This work is done by the Implementor, not the Designer. This would be when one  
> > CLEC buys another CLEC collocation and the Billing name needs to change to the  
> > New CLEC. This should all be flow through for the designer.

> > Mahalo,

> > Deni

> > Daniel Deffley wrote:

> > > Deni,

> > > Here is the memo you sent before. Just checking to see if this applies  
> > > for Private Line to Unbundled Element conversions. Currently, I show  
> > > this work being performed by a Designer for conversions rather than an  
> > > Implementor.

> > > Thanks,

> > > DD

> > > -----

> > > Subject: Re: Collocation Transitions

> > > Date: Mon, 08 Apr 2002 13:22:27 -0500

> > > From: Deni Toye <dtoye@qwest.com>

> > > Organization: Qwest Corporation

> > > To: Daniel Deffley <ddeffle@qwest.com>

> > > References: <3CB1B9E2.EBC92A48@qwest.com> <3CB1CA8A.A1F71662@qwest.com>

> > > The total time would be 5 min. If it needs to be broken down, the screening  
> > > would be 2 min and the closeout would be 3 min.

> > > Deni

> > > Daniel Deffley wrote:

> > > > Deni,

> > > > Yes, please add the time per step or summarize the total time to perform  
> > > > these activities.

> > > > Thanks,

> > > > Dan D.

> > > > Deni Toye wrote:

> > > > > Hi Dan,

> > > > > When one company buys another companies collocations, these are the  
> > > > > steps that the Implementor will need to do:

> > > > > 1. Screen the order

> > > > > 2. Close out activities including CLEC contact and close out of WFA/C

> > > > > screens with respective field completion.

> > > > > Are you needing more verbiage?

> > > > > Thanks,

> > > > Deni  
> > > >  
> > > > --  
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> > > > Disclosure outside of Qwest is prohibited without authorization.  
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> > > Disclosure outside of Qwest is prohibited without authorization.  
> > >  
> > > -----  
> > >  
> > > Deni Toye <dtoye@qwest.com>  
> > >  
> > > Deni Toye  
> > > <dtoye@qwest.com>  
> > > Pager: 800-946-4646 Pin 148-1534  
> > > Fax: 515-323-0181  
> > > Work: 515-286-6440  
> > > Additional Information:  
> > > Last Name Toye  
> > > First Name Deni  
> > > Version 2.1  
> > >  
> > > --  
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---

Deni Toye <dtoye@qwest.com>
-----------------------------

**Subject: Re: Collocation Transitions**

**Date: Mon, 08 Apr 2002 13:22:27 -0500**

**From: Deni Toye <dtoye@qwest.com>**

**Organization: Qwest Corporation**

**To: Daniel Deffley <ddeffle@qwest.com>**

The total time would be 5 min. If it needs to be broken down, the screening would be 2 min and the closeout would be 3 min.

Deni

Daniel Deffley wrote:

> Deni,  
> Yes, please add the time per step or summarize the total time to perform  
> these activities.  
> Thanks,  
> Dan D.  
>  
> Deni Toye wrote:  
>  
> > Hi Dan,  
> > When one company buys another companies collocations, these are the  
> > steps that the Implementor will need to do:  
> > 1. Screen the order  
> > 2. Close out activities including CLEC contact and close out of WFA/C  
> > screens with respective field completion.  
> >  
> > Are you needing more verbiage?  
> > Thanks,  
> > Deni  
> >  
> > --  
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> > Disclose and Distribute Only to Qwest Employees Having a Need to Know.  
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--  
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Disclosure outside of Qwest is prohibited without authorization.

---

Deni Toye <dtoye@qwest.com>
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**TAB 30**



## **LOCAL RESOURCE ADMINISTRATION CENTER (LRAC)**

Utilizes Work Force Administration/Dispatch Out (WFA/DO) to build installation daily service order logs. Monitors and logs service order progress and completion in WFA/DO.

Re-loads and re-schedules service orders that cannot be completed.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**Subject: Unbundled Loop Costing**

**Date: Mon, 10 May 1999 07:13:37 -0700**

**From: "Diane Kinkel" <dkinkel@uswest.com>**

**Organization: U S WEST Communications, Inc**

**To: Daniel Deffley <ddeffle@uswest.com>**

**CC: Paul Kinneberg <pkinneb@uswest.com>**

Attached is the Unbundled Loop costing information.  
Diane Kinkel

LRAC TIMES

FOR ALL HICAP UNBUNDLED ELEMENT ORDERS THAT REQUIRE	
1. Screen Order	2 min
2. Load work request to Technician	5 min
3. Closeout work request with Technician	3 min
4. Complete work in WFA/DO	3 min
SOURCE:	
Diane Kinkel - Staff Manager May-99	
Caroivn Mills - Staff Manager April-00	

## Install

### 1. Screen order.

The LRAC Load Specialist reviews the work request for any special instructions on the field dispatch.

### 2. Load work request to DS I&M Technician.

The LRAC Load Specialist loads the work request to the DS I&M Technician in WFA-DO.

### 3. Close work request with DS I&M Technician.

The Load Specialist receives a call from the DS I&M Technician.

The Load Specialist updates WFA-DO with any pertinent information about the order completion.

### 4. Complete work request in WFA-DO.

The LRAC Load Specialist completes the work request in WFA-DO

**TAB 31**

# INSTALLATION

Performs necessary filed work on new orders and changes to existing service including:

- Travel to customer premises
- Cross-connect activity at feeder plant to distribution plant field locations
- Customer premises work activities to connect circuit at the network interface
- Circuit testing as required
- Order completion with LRAC

## TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

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- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

LOOP TIMES

Job Description	Basic Installation First		Each Additional		Basic Installation with Performance Testing First		Each Additional		Coordinated Installation with Cooperative Testing		Each Additional		Coordinated Installation without Testing		Each Additional		Basic Installation with Cooperative Testing First		Each Additional	
	NA	NA	min	min	min	min	min	min	min	min	min	min	min	min	min	min	min	min	min	min
<b>DS I&amp;M Technician</b>																				
<b>2 WIRE OR 4 WIRE ANALOG LOOP</b>																				
<b>2 WIRE OR 4 WIRE ANALOG LOOP NONLOADED</b>																				
<b>BRI ISDN CAPABLE LOOP</b>																				
<b>DSL CAPABLE LOOP</b>																				
1. Analyze order	NA	NA	1 min	0 min	1 min	0 min	NA	NA	1 min	0 min	NA	NA	1 min	0 min	NA	NA	1 min	0 min	NA	NA
2. Travel to end user premises	NA	NA	21 min	0 min	21 min	0 min	NA	NA	21 min	0 min	NA	NA	21 min	0 min	NA	NA	21 min	0 min	NA	NA
3. Complete AP/SAC Point wiring (20%)	NA	NA	13 min	10 min	13 min	10 min	NA	NA	13 min	10 min	NA	NA	13 min	10 min	NA	NA	13 min	10 min	NA	NA
4. Complete Service Terminal work (20%)	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA
5. Customer contact	NA	NA	5 min	0 min	5 min	0 min	NA	NA	5 min	0 min	NA	NA	5 min	0 min	NA	NA	5 min	0 min	NA	NA
6. Contact CCT-1 to work order	NA	NA	3 min	0 min	3 min	0 min	NA	NA	3 min	0 min	NA	NA	3 min	0 min	NA	NA	3 min	0 min	NA	NA
7. Coordinate with parties to work order	NA	NA	NA	NA	20 min	NA	NA	NA	20 min	NA	NA	NA	20 min	NA	NA	NA	20 min	NA	NA	NA
8. Complete Performance/Conformance Testing	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA
9. Complete work request with Load Specialist	NA	NA	3 min	1 min	3 min	1 min	NA	NA	3 min	1 min	NA	NA	3 min	1 min	NA	NA	3 min	1 min	NA	NA
<b>DS1/DS3 CAPABLE LOOP</b>																				
1. Analyze order	NA	NA	1 min	0 min	1 min	0 min	NA	NA	1 min	0 min	NA	NA	1 min	0 min	NA	NA	1 min	0 min	NA	NA
2. Travel to end user premises	NA	NA	21 min	0 min	21 min	0 min	NA	NA	21 min	0 min	NA	NA	21 min	0 min	NA	NA	21 min	0 min	NA	NA
3. Complete AP/SAC Point wiring (20%)	NA	NA	13 min	10 min	13 min	10 min	NA	NA	13 min	10 min	NA	NA	13 min	10 min	NA	NA	13 min	10 min	NA	NA
4. Complete Service Terminal work (20%)	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA
5. Customer contact	NA	NA	5 min	0 min	5 min	0 min	NA	NA	5 min	0 min	NA	NA	5 min	0 min	NA	NA	5 min	0 min	NA	NA
6. Contact CCT-1 to work order	NA	NA	3 min	0 min	3 min	0 min	NA	NA	3 min	0 min	NA	NA	3 min	0 min	NA	NA	3 min	0 min	NA	NA
7. Coordinate with parties to work order	NA	NA	NA	NA	20 min	NA	NA	NA	20 min	NA	NA	NA	20 min	NA	NA	NA	20 min	NA	NA	NA
8. Complete Performance/Conformance Testing	NA	NA	15 min	10 min	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA	15 min	10 min	NA	NA
9. Complete work request with Load Specialist	NA	NA	3 min	1 min	3 min	1 min	NA	NA	3 min	1 min	NA	NA	3 min	1 min	NA	NA	3 min	1 min	NA	NA
ALAN BRAEGER - STAFF MANAGER																				
BILL RODRIGUEZ - STAFF MANAGER																				
MAY, 2000																				

Alan Braegger, Staff Manager, NCS  
Bill Rodriguez, Staff Manager, NCS  
May, 2000

## **Install**

### **1. Analyze work request**

The I&M accesses the WORD/CDOC document.

The I&M Technician determines what work requirements are associated to the assignment or equipment to the work order.

The I&M verifies the Circuit Design is accurate.

### **2. Travel time to end user premises**

Includes time to drive to Acces Point or Serving Area Interface and End User premises including service terminal as required.

### **3. Access Point/Serving Area Interface work (as required)**

Travel to AP/SAJ Box.

Test and verify facilities are acceptable for service.

Place Cross-Connect.

### **4. Service Terminal (as required)**

Travel to Service Terminal

Test and verify the facilities (E) and Buried Service Wire.

Place Drop Wire termination.

### **5. Customer contact**

Notify customer at premises of work to be performed.

### **6. Contact CCT-I to work order**

Installer contacts implementor to work order.

### **7. Coordinate with Implementor, COT, and CLEC**

Time spent to gather all parties involved to work the order(s).

### **8. Perform Required Testing**

Perform technical specification/core test as required.

Includes cooperative testing with CLEC as required.

Does not include additional cooperative testing that may be requested by CLEC.

### **9. Close work item with Dispatch.**

Contact LRAC and close order.



**TAB 32**

## **INTERCONNECT SERVICE CENTER**

Serves as the primary order provisioning contact for Competitive Local Exchange Carrier (CLEC) customers who purchase unbundled network elements products and services (i.e. Number Portability, Unbundled Loop, Unbundled Lineside Port, Resale) from Qwest.

The center provides end-to-end order coordination from request through order completion and serves as the primary liaison for the customer for all downstream organizations.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**INTERCONNECT SERVICE CENTER  
LOOP SERVICE REQUEST (LSR) PROCESS AND TIME ESTIMATES REVIEW  
MAY-JUNE 2001**

**SUBJECT MATTER EXPERTS PROVIDING INPUT TO REVIEW**

JOANNE GARRAMONE	STAFF MANAGER
LINDA MILES	STAFF MANAGER
SAMI HOOPER	STAFF MANAGER
MARLENE DIMANNA	STAFF MANAGER
MARK EARLY	STAFF MANAGER
CHERYLL GILLILAN	STAFF CONSULTANT - PROCESS
MARK ANDREWS	SERVICE DELIVERY COORDINATOR
MARY ANDERSON	SERVICE DELIVERY COORDINATOR
CRYSTAL SODERLUND	SERVICE DELIVERY COORDINATOR
DANIEL DEFFLEY	COST ANALYST

During May and June 2001 a number of conference calls were held to conduct a review of the Interconnect Service Center LSR (Loop Service Request) process and time to issue service orders. The purpose was to assure consistency with assumptions made when estimating times for processes that pertain to unbundled element products.

Key assumptions considered include:

Forward looking process, 12-18 months if possible.

Time estimate based on average that does not include internal order flow problem solving, system down

Highly skilled experience level of subject matter experts making time estimates.

Time estimates should not include supplements to initial order.

IMA flow through was addressed and flow through percentage weightings have been applied for product that will have flow through.

DVD JUNE 2001

**SUB LOOP UNBUNDLED DISTRIBUTION & FEEDER LOOP  
PROCESS, TIME ESTIMATES, PROBABILITIES**

Date: June-2001  
From: Linda Miles  
Title: Staff Manager-Service Delivery  
Interconnect Service Center

**INSTALL**

Work activity begins:	May include these tasks:	First (minutes)	Ea. Addl (minutes)	Probability of occurrence (%)
Receive LSR	Reviews LSR for completeness and accuracy, contractual entries (analyze request to determine co-provider, type of order and installation option)	3		100
	Verifies CFA or facility/circuit availability	n/a		
	Exchange Info-Obtain Central Office, name, address and office type, Access Telephone Address Guide to obtain the central office address	4		100
	CPPD-lookup billing USOC's for co-provider	2		100
	Summary Bill List-Look up BTN#, tax code, and Bill date	2		100
	Analyzes request to determine the co-provider, type of order and installation option.	2.5		100
	Verify Qwest end user Customer Service Record to determine if order issuance is applicable to provide the product. If applicable, may include rejecting the LSR.	N/A		
	Determine if the end user has Qwest directory advertising	N/A		
	Determine if the end user has Qwest retail contract	N/A		
	Determine critical dates	N/A		
Issue appropriate forms and/or orders	If there is either directory advertising or a retail contract or both, issue the order to remove the information from the account. An estimate of 50% of the accounts will have these.	N/A		
Customer Request Management (CRM)	Populate required fields	3	3	100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	3		100
Issue service order	Input unbundled loop order into service order processor (manually typing and formatting of all order for billing and provisioning of the loop)	10	5	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100
Call Handling	Includes handling calls from other departments working the order.	5	1	60
Error on Service Order (ESOI)	Handling of problems on the LSR, provisioning issues such as conditioning, facility problems, cable & pair, and typing problems handled by the center.	5	1	5

**DISCONNECT**

Work activity begins:	May include these tasks:	Time used: (minutes)		
Receive LSR	Reviews LSR for completeness and accuracy, validate circuit belongs to the co-provider	3		100
	Verifies existing account (accesses CSR in BOSS/CARS) and obtains closing bill address if applicable	2		100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	2		100
Issue service order	Input disconnect of loop order into the service order processor (manually typing and formatting of all order for billing and provisioning of the loop)	10	5	100
Customer Request Management (CRM)	Populate required fields	3	3	100

Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100

**Key Assumptions:**

The times documented are forward looking.

The times documented here are average times.

They do not reflect problems encountered during the processing of the service order.

They do not include supplements to the initial order.

These estimates do not include any maintenance or repair time.

This process is as of today and the current functionality if IMA for ordering formatting.

**TAB 33**

# **LOOP PROVISIONING CENTER (LPC)**

Utilizing the Facility Assignment Control System (FACS), ensures customer service order activity is provisioned with outside plant and central office facilities. FACS automatically processes the order with the facilities assignments.

Assignment Consultants are responsible for FACS component exception messages. A Request for Manual Assistance (RMA) is generated when all conditions for a customer service cannot be met. The assignment consultant resolves the RMA and the order is placed back into the system.

## **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

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- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**Subject: LPC info**

**Date: Wed, 16 May 2001 07:44:25 -0500**

**From: "Jeanette S. Cainjc" <jcain@uswest.com>**

**To: ddeffle@uswest.com**

Dan,

Better late than never. Sorry this took so long - no excuses, just busy. Everything has been concurred in by Diane Diebel's staff (LPC Process) so, feel very comfortable with this letter. No changes to times/dollars, they felt the Specials flow through rate was still a good average even though they have some months that hit the low 70ties.

I've changed some of the text as we've done more automation of RMAs.

Good Luck,

Jeanette

---

lpc01.doc	<b>Name:</b> lpc01.doc <b>Type:</b> Winword File (application/msword) <b>Encoding:</b> base64
-----------	---



May 10, 2001

TO: Dan Deffley

FROM: Jeanette S. Cain  
IT Development-FACS  
(402) 422-8319

RE: Loop Provisioning Center (LPC) Service Order Flow Through Rates and Error Resolution Times

The LPC is responsible for ensuring customer service order activity is provisioned with outside plant and central office facilities in a timely and accurate manner. The Facility Assignment Control System (FACS) which is comprised of components; Service Order Analysis and Control (SOAC), Position Analysis Workstation (PAWS), Loop Facilities Assignment and Control (LFACS) and SWITCH is the provisioning application supported by the LPC. Assignment Consultants are the employees responsible for FACS component exception messages.

Brief descriptions of the FACS components are;

**SOAC** - maintains control and status information on all service order requests, as well as the input image and certain data resulting from processing. This system interfaces with the service order processor (SOP) and the other service provisioning systems. SOAC generates assignment requests to LFACS for outside plant and to SWITCH for central office facilities. After assignments are made, SOAC receives responses from LFACS and SWITCH, merges and formats this data into a service order assignment section and automatically returns it to the SOP. SOAC sends the formatted assignments to Work Force Administration/Dispatch Out (WFA/DO). For switched customer service requests SOAC sends the telephone number, office equipment and features to MARCH for translation to the physical switch.

**PAWS** - a software system linked to SOAC to receive messages on service order activity. The primary function of PAWS is to distribute exception messages to Assignment Consultants for resolution.

**LFACS** - maintains a mechanized inventory of outside plant facilities (i.e., customer addresses, cables, cable pairs, cross box and customer serving terminals, assembled loops and loop makeup) and assigns the outside plant facilities to assignment requests received from SOAC. LFACS also generates work sheets for cable transfers and reconcentrations. These activities are updated mechanically upon notification of completion. In addition, LFACS is used to make repair changes to working customer service.

**SWITCH** - used to inventory and assign central office switching equipment and related facilities i.e., range extension equipment, tie pairs and bridge lifters. Assignment requests are received from SOAC after successful LFACS assignments are made.

When all conditions for a customer service request cannot be met by the FACS components a Request for Manual Assistance (RMA) is generated. An RMA indicates service order processing has been stopped. The RMA identifies the reason the service order cannot be automatically processed, the FACS component that failed processing and provides an image of the customer service request.

All RMAs are sent from SOAC to PAWS. PAWS places the RMAs into a 'next work package' queue. Assignment Consultants using an intelligent work station (IWS) terminal access PAWS to retrieve RMAs for resolution. Assignment Consultants are trained to resolve all RMA types for all

service requests. Meaning, they can resolve exception messages for POTS, non-designed specials, specials and Wholesale product/services(s) service order activity. The objective for RMA resolution per Assignment Consultant is forty (40) per day.

U S WEST has developed two (2) applications which utilize artificial intelligence to resolve various RMAs. The applications are ARMAR (Automatic RMA Resolution) and APP (Automated Provisioning Platform). ARMAR is used to resolve working left-in RMAs. APP resolves RMAs which are a result of, exact match for address cannot be found, no available/compatible cable facilities, restricted terminals and loop makeup not available. These applications have reduced the number of RMAs sent to Assignment Consultants for resolution. Assignment Consultants will get these RMAs only if the artificial intelligence applications cannot resolve.

FACS flow through objectives have been established for, total customer service requests, special service orders and artificial intelligence (mechanical) applications. The **overall flow through objective** is based on total service order volume that includes; POTS, non-designed specials, coin, specials, Wholesale product/service(s) and artificial intelligence applications. **Individual flow through objectives** have been established for Special Services (orders provisioned in TIRKS) and artificial intelligence RMA resolution. **No individual flow through objectives** have been established for POTS, non-designed specials, coin or Wholesale product/service(s). The flow through and RMA objectives consider all order activity types: inward, outward and change as well as, single and multi-line requests. There is a single objective for Assignment Consultant RMA resolution, this objective does not differentiate between type of customer service requests (inward, outward, change) or number of lines per requests.

The following summarizes the flow through (FT) and Assignment Consultant objectives for 2001:

	<u>2001</u>
Overall FT*	85%
Special Services FT	60%
Mechanical FT	85%
Assignment Consultant	40 RMA's per day
Avg clearing time per RMA**	11.25 min

\*POTS flow through is included in this objective, there is no individual objective for POTS.

\*\*Average clearing time per RMA includes all activity types; inward, outward and change as well as single and multi-line requests.

The flow through and Assignment Consultant objectives as well as average clearing time are based on all service order activity types; inward, outward and change. Specific objectives have not been established for inward/change or outward activity

**Subject: Re: Loop NRC Process**

**Date: Tue, 04 Dec 2001 11:20:22 -0600**

**From: Jeanette Cain <jcain@qwest.com>**

**Organization: Qwest Information Technologies**

**To: Daniel Deffley <ddeffle@qwest.com>, dgolleh@qwest.com**

**CC: rstrunk@qwest.com, jcain@qwest.com**

Dan  
Doug

Thought I'd send you an email of what I said on the call this morning;

When U S WEST (Qwest) began work on Competitive Provisioning of Unbundled Loops we first looked at what order flow, POTS vs Designed, would be the most efficient/effective. When the decision was made to use the Designed flow we then looked at the provisioning systems, (SOAC, LFACS & SWITCH) involved and used by the LPC, to determine if enhancements were needed to obtain optimum flow through. There was never an intent to have 100% flow through, this is literally impossible but, we wanted to make certain we could get as high a percent as possible. This is the same practice we use for Qwest retail product deployment.

No major software changes were needed in the provisioning applications. SOAC required modifications to support order writing and product deployment. The changes were in SOAC site tables, some of these tables are updated by Telcordia (six week turnaround) and others are updated by Qwest FACS SYAD, to add FIDs and USOCs. LFACS and SWITCH required no changes.

The main reasons for fallout in the provisioning applications are;

- 1) invalid input from the CLEC e.g., end user address or product request
- 2) no facilities available that meet the qualifications for the CLEC product requested e.g., CLEC requests loop with no bridge tap or load coil and spare facilities do not meet this criteria
- 3) no compatible, spare facilities available
- 4) compatible facilities are automatically assigned however, there is no available loop makeup for the loop assigned (loop makeup is such items as; cable gauge, length, bridge tap, loading)

Actions taken by LPC when these conditions occurred;

- 1) return the order to the ISC for verification with Co-Provider
- 2 & 3) attempt to locate compatible facilities using the 11 step delayed order process. If unable to locate then enter the order in RTT (Referral Tracking Tool) as a delayed order (held order)
- 4) the error is automatically routed to the Design Advisory Group (DAG) to enter the loop make up for the loop assigned to the order. Once the DAG enters the information the order will automatically be re-started through the systems and continue on to design.

The LPC would follow the same processes for fallout with designed orders for Retail,

the only exception is verification on input errors (#1) would not go to ISC but, to a Qwest market unit. There is a web site that tracks volume associated with these errors unfortunately, cannot differentiate between Wholesale or Retail counts. Further, the LPC doesn't care whether the fallout is Wholesale or Retail their measurement is to resolve in today out today fallout. If volume of fallout exceeds what LPC can handle in a day then, the fallout is prioritized by due date.

Jeanette S. Cain  
(402) 422-8319

Daniel Deffley wrote:

> Attached is the file I referred to on my voice message.  
>  
> The conference call is scheduled for 10:00 central, Tue, Dec. 4  
> Call in # 877-591-8687  
> Conf. id # 325-1015  
> Your attendance or a representative from your center is critical.  
>  
> Once again, the critical need is to defend Qwest nonrecurring cost with  
> regard to service order processing and provisioning of unbundled loop  
> and other elements. At this time the focus is on centers that touch the  
> order due to fall out or other manual provisioning requirements. ISC  
> issues will be addressed separately.  
>  
> Dan Deffley  
> Cost Analyst  
> 402-422-7281 (currently voice message only)  
>  
> -----  
> Name: AZ NRC QWEST-ATT ANALYSIS.xls  
> AZ NRC QWEST-ATT ANALYSIS.xls Type: Microsoft Excel Worksheet (application/vnd.ms-excel)  
> Encoding: base64

---

Jeanette Cain <[jcain@uswest.com](mailto:jcain@uswest.com)>  
Staff IT Analyst  
IT  
Software Development

**TAB 34**

## **LOCAL RESOURCE ADMINISTRATION CENTER (LRAC)**

Utilizes Work Force Administration/Dispatch Out (WFA/DO) to build installation daily service order logs. Monitors and logs service order progress and completion in WFA/DO.

Re-loads and re-schedules service orders that cannot be completed.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

ITEM	LOAD SPECIALIST DISTRIBUTION SUBLOOP WORK ACTIVITY	TIME ESTIMATES	
		SUBLOOP PER ORDER	PROBABILITY OF OCCURRENCE
	<u>INSTALL</u>		
1	SCREEN ORDER	2	20%
2	LOAD WORK REQUEST/TECH LOAD SYSTEM	2	20%
3	CLOSE-OUT ORDER WITH TECH	3	5%

**ASSUMPTIONS**

The process and time estimates are forward-looking to year end 2000.

The times documented above are average estimates. The times are in minutes.

The times represent a U S West average.

They do not reflect times spent for a supplement to the order.

They do not reflect problems with the order or redesign issues.

They do not reflect problems or trouble at test, with systems or with the customer.

All times are based on a service order and no problems encountered at test & turnup.

Attached are the functions associated with the steps performed by the Load Resource Specialist.

**TIME ESTIMATE SOURCES - Subject Matter Experts  
TERRY MEEHAN - STAFF MANAGER**

**PROFILE COMPLETED 2/2000**

**Subject: Unbundled Loop Costing**  
**Date: Mon, 10 May 1999 07:13:37 -0700**  
**From: "Diane Kinkel" <dkinkel@uswest.com>**  
**Organization: U S WEST Communications, Inc**  
**To: Daniel Deffley <ddeffle@uswest.com>**  
**CC: Paul Kinneberg <pkinneb@uswest.com>**

Attached is the Unbundled Loop costing information.  
Diane Kinkel

APPLY TO FEEDER SUBLOOP PEA PRODUCT TEAM

DVD

June 2000



FOR ALL HICAP UNBUNDLED ELEMENT ORDERS THAT REQUIRE	
1. Screen Order	2 min
2. Load work request to Technician	5 min
3. Closeout work request with Technician	3 min
4. Complete work in WFA/DO	3 min
SOURCE:	
Diane Kinkei - Staff Manager Mar-99	
Carolyn Mills - Staff Manager April-00	

## Install

### 1. Screen order.

The LRAC Load Specialist reviews the work request for any special instructions on the field dispatch.

### 2. Load work request to DS I&M Technician.

The LRAC Load Specialist loads the work request to the DS I&M Technician in WFA-DO.

### 3. Close work request with DS I&M Technician.

The Load Specialist receives a call from the DS I&M Technician.  
The Load Specialist updates WFA-DO with any pertinent information about the order completion.

### 4. Complete work request in WFA-DO.

The LRAC Load Specialist completes the work request in WFA-DO.

**TAB 35**

# INSTALLATION

Performs necessary field work on new orders and changes to existing service including:

- Travel to customer premises
- Cross-connect activity at feeder plant to distribution plant field locations
- Customer premises work activities to connect circuit at the network interface
- Circuit testing as required
- Order completion with LRAC

## TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

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- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

ITEM	FIELD INSTALLER DISTRIBUTION SUBLOOP WORK ACTIVITY	SUBLOOP FIRST	TIME ESTIMATES		
			PROBABILITY OF OCCURRENCE	SUBLOOP EACH ADDL	PROBABILITY OF OCCURRENCE
<u>INSTALL</u>					
1	INITIAL TRAVEL TO FCP & END USERS PREMISES	21	100%	na	NA
2	SAJ - FIELD CONNECTION POINT ACTIVITY	13	100%	5	100%
3	PERFORM PREMISES ACTIVITIES	35	30%	10	30%
4	TESTING AND TURNUP *	20	30%	5	30%
5	CLOSE ORDER in field access system/wfado	3	100%	na	NA

DISCONNECT

FIELD TECH NOT DISPATCHED ON DISCONNECT ORDERS

**ASSUMPTIONS**

The process and time estimates are forward-looking to year end 2000.

The times documented above are average estimates. The times are in minutes.

The times represent a U S West average.

They do not reflect times spent for a supplement to the order.

They do not reflect problems with the order or redesign issues.

They do not reflect problems or trouble at test, with systems or with the customer.

All times are based on a service order and no problems encountered at test & turnup.

Attached are the functions associated with the steps performed by the installer

\* Item 3 assumes 70% of orders will be for re-use (existing customers)

\* Item 4 includes additional travel to and from field connection point and end user premises to perform continuity testing.

**TIME ESTIMATE SOURCES - Subject Matter Experts**

**TERRY MEEHAN - STAFF MANAGER**

PROFILE COMPLETED 2/2000

SPECIAL SERVICES

Feb-00							
<b>FIELD INSTALLER</b>							
<b>Work Activity Descriptions</b>							
<b>INSTALL</b>							
<b>1. Travel to End User's Premises</b>							
Travel time, including time enroute to a Access Point or Serving Area Control location.							
<b>2. AP/SAC Point Work</b>							
Physically place necessary cross-connect.							
<b>3. Perform Premises Activities</b>							
Discussing work to be completed with customer.							
Gaining access to terminal area.							
Perform wiring activities necessary for circuit installation.							
<b>4. Testing</b>							
Test with implementor or COT as necessary to assure working circuit.							
<b>5. Close Order with Load Specialist</b>							
Contact Dispatch to close out order.							
<b>DISCONNECT</b>							
No installer time charged to order activity for disconnect.							
If dispatched, purpose is to retrieve equipment.							
Time charged to x codes.							

SPECIAL SERVICES

Feb-00							
<b>FIELD INSTALLER</b>							
<b>Work Activity Descriptions</b>							
<b>INSTALL</b>							
<b>1. Travel to End User's Premises</b>							
Travel time, including time enroute to a Access Point or Serving Area Control location.							
<b>2. AP/SAC Point Work</b>							
Physically place necessary cross-connect.							
<b>3. Perform Premises Activities</b>							
Discussing work to be completed with customer.							
Gaining access to terminal area.							
Perform wiring activities necessary for circuit installation.							
<b>4. Testing</b>							
Test with implementor or COT as necessary to assure working circuit.							
<b>5. Close Order with Load Specialist</b>							
Contact Dispatch to close out order.							
<b>DISCONNECT</b>							
No installer time charged to order activity for disconnect.							
If dispatched, purpose is to retrieve equipment.							
Time charged to x codes.							

**FIELD INSTALLER**  
**INTRA Building DISTRIBUTION SUBLOOP**  
**WORK ACTIVITY**

**TIME ESTIMATES**

ITEM	SUBLOOP FIRST minutes	PROBABILITY OF OCCURRENCE	SUBLOOP EACH ADDL minutes	PROBABILITY OF OCCURRENCE	
<u>INSTALL</u>					
1	INITIAL TRAVEL TO END USERS PREMISES	21	100%	na	NA
2	LOCATE ASSOCIATED BUILDING TERMINAL OR TERMINALS	10	100%	NA	NA
3	PERFORM ANAC IDENTIFICATION AND RUN CROSS CONNECTS	5	100%	5	100%
4	TESTING AND TURNUP	5	100%	5	100%
5	CLOSE ORDER in field acces system/wfado	3	100%	na	NA

DISCONNECT

FIELD TECH NOT DISPATCHED ON DISCONNECT ORDERS

**ASSUMPTIONS**

- The process and time estimates are forward-looking.
- The times documented above are average estimates. The times are in minutes.
- The times represent a U S West average.
- They do not reflect times spent for a supplement to the order.
- They do not reflect problems with the order or redesign issues.
- They do not reflect problems or trouble at test, with systems or with the customer.
- All times are based on a service order and no problems encountered at test & turnup.
- Attached are the functions associated with the steps performed by the Installer

**SOURCE**

TERRY MEEHAN - STAFF MANAGER  
 May-01



<b>DS I&amp;M Technician</b>	<b>DSI FEEDER SUBLOOP FIRST</b>	
	<b>DSI FEEDER SUBLOOP EACH ADDITIONAL</b>	
<b>FEEDER SUBLOOP (DS1)</b>		
1. Analyze order	1 min	0 min
2. Travel time	21 min	0 min
3. Complete Serving Area Interface wiring	13 min	10 min
4. Complete Field Connection Point wiring	13 min	10 min
5. Contact CCT-1 to work order	3 min	0 min
8. Complete Performance Conformance Testing	15 min	10 min
9. Complete work request with Load Specialist	3 min	1 min

ALAN BRAEGER - STAFF MANAGER  
 BILL RODRIGUEZ - STAFF MANAGER  
 MAY 2000

Alan Braegger, Staff Manager, NCS  
Bill Rodriguez, Staff Manager, NCS  
May, 2000

## **Install**

### **1. Analyze work request.**

The I&M accesses the WORD/CDOC document.

The I&M Technician determines what work requirements are associated to the assignment or equipment to the work order.

The I&M verifies the Circuit Design is accurate.

### **2. Travel time**

Includes time to drive to Acces Point or Serving Area Interface and End User premises including service terminal as required.

### **||3. Complete Serving Area Interface wiring**

Test and verify facilities are acceptable for service.

Place Cross-Connect.

### **||4. Complete Field Connection Point wiring**

Test and verify the facilities at FCP

Place Cross-Connect.

### **6. Contact CCT-I to work order**

Installer contacts implementor to work order.

### **7. Coordinate with Implementor, COT, and CLEC**

Time spent to gather all parties involved to work the order(s).

### **8. Perform Required Testing**

Perform technical specification/core test as required.

includes cooperative testing with CLEC as required.

Does not include additional cooperative testing that may be requested by

CLEC.

### **9. Close work item with Dispatch.**

Contact LRAC and close order.

**TAB 36**

**Subject: CPMC LABOR HOUR ESTIMATES PER JOB ORDER FROM ORDER  
RECEIPT TO QUOTE DELIVERY**

**Date:** Fri, 30 Nov 2001 13:30:47 -0600

**From:** "Joseph Borrini" <jborrin@qwest.com>

**Organization:** U S WEST Communications, Inc

**To:** Daniel Deffley <ddeffle@qwest.com>

**CC:** Brooke Bale <bbale@qwest.com>

Dan,

If I understand your request correctly here are our averages from order receipt to quote delivery:

Clec application is sent to the CPMC order validation person via email. The email is recorded and then reviewed for correctness and then audited for validation. The steps involved are to review Clec contracts and Fed and state 271 requirements as it pertains to the specific Clec and the job order type. Once validated the CPMC inputs the application information into a database, establishes required and key installation, delivery and completion dates. Notification of these dates are distributed to all necessary wholesale and engineering departments. The application is distributed as well. A 48 hour call is optional for the Clec and is arranged if requested. 25 to 50% of the time this call is requested. Change orders are also handled and updated by the CPMC. Handle Clec and wholesale and engineering Q&A. Average validation time is 120 minutes.

Quote team verifies schedule of quote for the job and verifies Clec contract and state cost dockets to cost element pricing. Builds template for quote preparation and prepares both nonrecurring and recurring quote for the Clec. Prepare billing and establish USOC element identifiers. email quote to Clec and copies for billing groups and wholesale. Maintain archives file for quotes for each Clec for each state. Maintain library for Clec contracts, SGAT and Telric pricing documents, and state and FCC cost docket requirements. Handle engineering, wholesale and Clec Q&A.

Average quote time is 60 minutes.

Total time average is 3 hours. Note: this does not include the billing and collection activity for the job nor are we including the CPMC feasibility and followup for job completion and deviation followup and reporting. Data base reporting is also not included.

thx, joe

# Special Construction Group

Date: 3 March 2001  
Memo To: Dan Deffley  
cc: Benjamin Campbell

From: Earlene E. Skinner

**SUBJECT:** Field Connection Point Inquiry Fee Timelines

If you have any further questions regarding the following information, I can be reached on (303)792-4461.

## Outside Plant Tactical Planner Activities

- On receipt of Request, review records for existence of Feeder Distribution Interface (FDI) at the address requested. (1 hour each request)
- Review capacity of FDI in available databases. (1 hour each request)
- Review databases for planned work activities affecting available capacity in FDI. (1 hour each request)
- Based on information that is provided on Request Form, determine and verify appropriate Field Engineering contacts. (1/2 hour each request)
- Prepare work package for Field Engineer site visit and distribute. (1 hour each request)

# Special Construction Group

- Review Field Engineering notes for completeness. Resolve discrepancies with the Field Engineer then forward notes to Special Construction Group. (3 hours each request)
- Track and escalate as required, to ensure that time frames are met. (1/2 hour each request)

## Field Engineer Activities

- On receipt of Request, review with Tactical Planner for completeness and clarify issues on requirements (1 hour each request)
  - Make site visit to verify information contained in databases and determine work operations and materials required to satisfy the Customer's request. This site visit may include but is not limited to: driving to the site, opening the FDI to inspect existing equipment, contacting local permitting authorities to determine requirements for increasing the size of the FDI, contacting private property owners if a private easement is involved, working with other utilities to determine location of their facilities, preparing field notes to document work required. (5 hours each request)
  - Forward field notes and other pertinent information to Tactical Planner. Review notes with Tactical Planner. (2 hours each request)
-

**Subject: Cost Doc for FCP Reclassification**

**Date:** Fri, 29 Mar 2002 12:02:08 -0700

**From:** Carla Campbell <cxcamp3@qwest.com>


**Organization:** Qwest Corporation

**To:** bbale <bbale@uswest.com>

**CC:** Daniel Deffley <ddeffle@qwest.com> , Benjamin Campbell <bocampb@qwest.com> ,  
Stacy Hartman <sscrogg@qwest.com>


Brooke, Will you look over this Cost Document and let me know if you have any questions. If it looks good to you let me know so Dan Deffley can officially use this doc.

Thanks, Carla

 CPMC FCP COST DOC.xls	<b>Name:</b> CPMC FCP COST DOC.xls <b>Type:</b> Microsoft Excel Worksheet (application/vnd.ms-excel) <b>Encoding:</b> base64
---	--

Carla Campbell <cxcamp3@qwest.com>

Qwest Project Manager CO, MT and WY



<b>Collocation Project Management Center (CPMC)</b>		Orig. Issue
<b>FCP RECLASSIFICATION COLLOCATION</b>		4/03/02
<b>WORK ACTIVITIES FOR PROCESSING A FCP RECLASSIFICATION REQUEST</b>		<b>Time - min.</b>
Receive request place in file on Desktop		1.0
Check for previous requests at this address		5.0
Review Clec's contract and 271 requirements		30.0
Check Application for errors		15.0
48 hour call with Clec (optional)		30.0
Creates Facesheet		5.0
Compose and forward E-mail to SICM, CPMC PM. WPM		2.0
Shared time for common phone calls, meetings, reports,		10.0
Print copy of Application		1.0
Print copy of e-mail to ATR		1.0
Create physical folder and file		3.0
Enter request data into COMET		7.0
Move file from desktop into results folder		2.0
Place copy of e-mail in physical folder		2.0
File physical folder		2.0
	<b>Total time</b>	
		116.0
<b>WORK FOR PROCESSING AN FEASIBILITY</b>		
Abtain files from validation group		2.0
Contact CPMC Project Manager		1.0
Receive OSP feasibiltiy from CPMC Project Managers		1.0
Print OSP feasibility out and File		2.0
Create Feasibility Form		5.0
Email Feasibility to Cust, WPM, SICM		2.0
Print email		1.0
File email and hard copy in Job Folder and File job away		3.0
	<b>Total time</b>	
		17.0
<b>WORK FOR PROJECT MANAGER</b>		
Receive job from validation		1.0
Download application to file		1.0
Complete OSP facesheet		5.0
Find OSP person from wirecenter		5.0
Email to OSP Tactical Planner with attachments		2.0
Print out and put in file		2.0
Check CPD for job entered		3.0
Input into comet the actual CPD date		3.0
Receive Feasibility from OSP TP check for accuracy		3.0
Send Feasibility to Feasibility team		2.0
Receive CPD costing tool from OSP TP		2.0
Print out and put in file		2.0
Update Comet		3.0
Send CPD costing tool to Quote Team		2.0





<b>Collocation Project Management Center (CPMC)</b>	<b>Orig. Issue</b>
<b>FCP RECLASSIFICATION COLLOCATION</b>	4/03/02
Builds Template for Quote for reaccuring and nonreaccuring charges	10.0
Email Quote to Clec and copies to Wholesale and Billing Dept	15.0
File Quote in file folder	2.0
Update Comet database	5.0
<b>Total time</b>	
	64.0
<b>Discription of the Process for CPMC</b>	
CPMC receives the Collocation order through the Validation Team and they hand it off to the Feasibility Team. It then goes to the State Project Manager. The State Project Manager monitors the job to completion . The Quote and Billing Teams will coordinate with the State Project Manager to assure the Quote and Bills are sent and monitored on thier set timeliines.	
<b>Total time for the CPMC Process for the FCP Reclassification</b>	<b>319.0 minutes</b>

**TAB 37**

## **DESIGN**

- Overall responsibility for RID (Record Issue Date) completion.
- Upholding Qwest design standards
- Assigns interoffice facilities and equipment at the circuit level
- Prepares and distributes WORD (Work Order Record Detail) including DLR (Design Layout Record).
- Ensures that TIRKS (Trunks Integrated Record Keeping System) designs meet the customer expectations.
- Escalates as necessary to ensure pre-RID dates are met.
- Advises Qwest sales forces or order originators of jeopardies as they are discovered.
- Maintains TIRKS database integrity by making design changes as they occur (i.e. cable pair changes, etc.)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

## DESIGN

### Unbundled Network Elements Local Interconnection Service Time Estimate, Service Order Work Activities Process

Kathy Platts – Staff Manager in the Designed Services Center (Des Moines) is the Subject Matter Expert that compiled and provided the time estimates, probabilities, and work activity descriptions for Unbundled Loops, Subloop, UDIT, EUDIT, EEL, Dark Fiber elements.

Kay Gruebel – Staff Manager, Designed Services Center (Des Moines) compiled and provided the time estimates and work activity descriptions for LIS, Unbundled Switching, and CCSAC elements.

Conference calls with Staff Managers and interviews with Design Technicians were conducted to review the work activities, assign time estimates, and assign flow through percentages for unbundled network elements.

Latest review made May, 2000

Subject Matter Experts contributing to results:

Kathy Platts – Staff Manager Designed Services, Des Moines  
Dave Olson – Manager Designed Services Methods, Seattle  
Denis Robison – Staff Manager Designed Services, Salt Lake City  
Kay Gruebel – Staff Manager Designed Services, Des Moines  
Design Technicians, Des Moines, Salt Lake City

:COST ELEMENT		
DS1, DS3 CAPABLE LOOP FEEDER SUBLOOP	DS1/DS3	% MANUAL PROB
<b>DESIGN</b>		
WORK ACTIVITY		
<u>INSTALL</u>		
ORDER HANDLING/SCREENING	5	0.20
GOC ORDER LOG	6	0.20
ENTER WA MASK	5	0.80
PREP LOOP INPUT/DRI	15	0.75
CIRCUIT DESIGN	30	1.00
DISTRIBUTE WORD DOC	2	0.90
<u>DISCONNECT</u>		
ORDER HANDLING/SCREENING	5	0.10
GOC ORDER LOG	6	0.10
ENTER WA MASK	5	0.10
DISCONNECT CIRCUIT	5	0.10
DISTRIBUTE WORD DOC	2	0.10
<b>NOTE</b>		
The time estimates and probability percentages listed are forward-looking.		
These work activities are required to process a service request that falls out of the TIRKS system for mechanized design.		
These are average times. The times assume the technician will not encounter problems during the manual process necessary to process the service request.		
<b>SOURCE</b>		
KATHY PLATTS		
DESIGN CENTER STAFF		
1/99		
MARCH 2000 Per Kathy Platts, these times and probabilities are appropriate for high cap loop and feeder subloop order processing.		

## **IMPLEMENTOR**

Has overall control responsibility for provisioning, maintaining, coordination and testing of designed services.

Contacts other centers/technicians for the coordinated effort to complete service order activity requirements.

Tests with central office, field installation personnel as necessary.

Provides test results to customer.

Notify customer of work completed

Complete order in required systems (Work Force Administration)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

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- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

UNBUNDLED LOOP  IMPLEMENTOR WORK ACTIVITY	COST ELEMENT		COST ELEMENT		COST ELEMENT		COST ELEMENT		COST ELEMENT	
	BASIC		CONFORM TST		COORD INST COOP TST		COORD INST W/O TST		BASIC WITH COOP TST	
	F	EA	F	EA	F	EA	F	EA	F	EA
	per order		per order		per order		per order		per order	
<u>INSTALL</u>										
SCREEN WFA FOR CIRCUIT	5	5	15	15	15	15	10	10	15	15
VERIFY LNO FOR CIRCUIT	na	na	10	10	10	10	na	na	10	10
VERIFY LNO COMPLETION	5	5	na	na	na	na	5	5	na	na
COORDINATION TIME WITH CLEC, FIELD	na	na	na	na	20	20	na	na	na	na
PERFORMANCE/CONFORMANCE TESTING	na	na	15	15	15	15	na	na	15	15
NOTIFY CUSTOMER	5	0	5	0	5	0	5	0	5	0
COMPLETE CIRCUIT IN WFA/C	10	10	10	10	10	10	10	10	10	10
<u>DISCONNECT</u>										
SCREEN WFA FOR CIRCUIT	5	5	5	5	5	5	5	5	5	5
CONTACT CUSTOMER	5	0	5	0	5	0	5	0	5	0
COMPLETE CIRCUIT IN WFA/C	5	5	5	5	5	5	5	5	5	5
<p>NOTE: The times documented above are average estimates.                      They do not reflect times spent for supplement to the order.                      They do not reflect problems with the order or redesign issues.                      They do not reflect problems or trouble at test, with systems or with the customer.                      All times are based on a perfect service order and no problems encountered at test &amp; turnup.                      Each loop is ordered individually and tested individually.</p> <p>Attached are the functions associated with the steps performed by the Implementor.</p>										
SOURCE: LINDA HENDRICKS - STAFF MANAGER										
DATE 03/08/01										
Review 3/01 Deni Toye, Mariene Mirian										



# Customer Communications Technician - Implementor

## Install

### 1. Screen WFA-C for Order accuracy.

The CCT-I accesses the WFA-C OSSSLST (Order List) screen to examine and prioritize order load by Critical Date.

The CCT-I accesses the WORD document on the OWDDOC (WORD Document) screen to examine work request.

The CCT-I locates the installation option of the work request on the WORD document and determines if additional work steps must be created for the Central Office Technician (i.e., DD work activities).

If the order request is for a Coordinated Installation Option, the CCT-I determines the "Appointment Time".

If No "Appointment Time" has been specified, the CCT-I contacts the Service Delivery Coordinator (SDC) via telephone to obtain an "Appointment Time".

Once the "Appointment Time" has been determined, the CCT-I builds the Central Office DD work request on the WFA-C OSSCWL (Circuit Work Location) screen specifying the requested "Appointment Time".

The CCT-I updates the WFA-DO DOSOI (Service Order Installation) screen with the "Appointment Time".

The CCT-I notifies the CORAC and LRAC of the Coordinated work request via a telephone call.

The CCT-I examines the Circuit Details portion of the WORD document for circuit design completeness.

The CCT-I sets any other pertinent Calendar (CAL) events on the WFA-C OSSSLST (Order List) screen.

The CCT-I complete the SCR Critical Date on the WFA-C OSSOI (Order Installation) screen.

### 2. Verify LNO completion.

The CCT-I verifies the LNO (Central Office and/or I&M technician has completed the physical work required on the work request for DVA and DD. Typically, DVA will post automatically at the item level once all of the DVA dates have been met at the Circuit Work Location (CWL) level.

If CWLs have not been completed by the DVA date, the CCT-I notifies the Central Office to complete the CWLs.

If the physical work cannot be completed, the CCT-I posts a jeopardy against the DVA date. The current Designed Services Jeopardy process is then followed.

If a Coordinated Cut has been requested, the CCT-I will call the Co-Provider to receive and "OK" to begin work.

If the work cannot be completed on DD because the Co-Provider is not ready, the CCT-I places a "C" code jeopardy against the order. The current Designed Services Jeopardy process is then followed.

If the work cannot be completed on DD because of a USW problem, the CCT-I will post the appropriate jeopardy code against the DD. The current Designed Services Jeopardy process is then followed.

The CCT-I makes the appropriate remark entries into the WFA-C OSSLOG (Work Request Log).

### 3A. Monitor Performance Testing.

The CCT-I monitors and records the test results on the WFA-C OSSCN (Circuit Notes) screen. These test results are obtained by the Central Office technician and the DS I&M technician testing the newly provisioned circuit. The tests performed are listed in the Test Requirement document attached.

### 3B. Complete Performance Testing.

## Customer Communications Technician - Implementor

In cases where the CCT-I is able to test, the testing is performed with the DS I&M Technician. The CCT-I records the test results on the WFA-C OSSCN (Circuit Notes) screen. The tests performed are listed in the Test Requirement document attached.

### 4. Coordinate Cooperative Testing

The CCT-I acts as the central contact between the DS I&M technician and the Co-Provider. The CCT-I notes the tests performed and enters the result information on the WFA-C OSSCN (Circuit Notes) screen.

The CCT-I records any pertinent remarks on the WFA-C OSSLOG (Work Request Log).

### 5. Notify Co-Provider of order completion.

The CCT-I notifies the Co-Provider that the work request is completed.

The CCT-I informs the Co-Provider of any additional charges that will apply.

The CCT-I provides required test result information to the Co-Provider.

The CCT-I records the Co-Provider order completion contact information on the WFA-C OSSLOG (Work Request Log).

### 6. Post order complete in WFA-C.

The CCT-I posts the Due Date complete on the WFA-C OSSOI (Order Installation) screen.

The CCT-I completes any additional remarks on the WFA-C OSSLOG (Work Request Log).

The CCT-I completes any required electronic billing or rebates in WFA-C.

## Disconnect

### 1. Screen WFA-C for Order accuracy.

Screen OSSLST

Verify information on WORD document

Refer WORD document back to Designer if not accurate

Check for Co-Provider work locations involved on order

Enter note if Co-Provider involved on OSSCN

Check for remote test capability and hand-off to Designer or LNO if appropriate

Check to see if item is loaded in WFA-DI/DO

Assign Critical Dates

Enter name and number on DOISWR

### 2. Contact Co-Provider

Notify customer work is complete

Add pertinent notes to OSSCN screen

If customer is not available, enter the following information on the OSSOIZ screen

No customer contact

Telephone Number called

### 3. Complete circuit in WFA-C

Check WFA-C OSSLST for critical events

Check DISP for PRE status

Jeopardize and escalate to accommodate customer's need

Add additional billing charges

Complete order in WFA-C

Perform required tests

Contact Designer if required

**TAB 38**

# **CENTRAL OFFICE**

Responsible for service connection in the central office and associated testing and administrative functions. Places cross-connects (jumpers), performs cross-office testing, and provides support to field installation and control center for circuit testing as required.

## **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

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- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**Subject: COT Time and Definitions**

**Date: Thu, 11 May 2000 11:55:29 -0700**

**From: "Steven Hilleary" <shillea@uswest.com>**

**To: ddeffle@uswest.com**

Attached are the changes we discussed for the CO times.

I have added the Due Date operations to coordinate and setup circuit testing with an outside technician. These will only apply to circuits with this testing requested. The other changes reflect the split of CO implementation steps as discussed.

Steve Hilleary  
CO Staff  
253-567-5214

---

COT TIMES

Steve Hilleary, L. STAFF MANAGER  
MAY, 2000

Central Office Technician

Basic (Reuse) Installation  
Each Additional  
Basic with Performance Testing Installation  
Each Additional  
Coordinated Installation with Cooperative Testing  
Each Additional  
Coordinated Installation with No Testing  
Each Additional  
Basic Installation with Cooperative Testing First  
Each Additional

DS1, DS3 CAPABLE LOOP

DS1 FEEDER SUBLOOP

1. Analyze Order	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min	5 min
2. Complete Cross-connect (2 - mdf & icdf)	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min	4 min
3. Complete Loop Qualification	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
4. Record DVA Test Results	NA	NA	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
5. Post DVA work complete in WFA-DI	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min	2 min
9. Perform Continuity Stress testing	NA	NA	10 min	10 min	10 min	10 min	NA	NA	10 min	10 min
7. Set up of DD test with I&M tech	NA	NA	2 min	1 min	2 min	1 min	NA	NA	2 min	1 min
8. Complete DD work status with CCTI	NA	NA	3 min	1 min	3 min	1 min	NA	NA	3 min	1 min

1. This assumes reuse of a qualified digital loop. Loop Qualification tests are performed for all loops not previously qualified for digital service.

Central Office Technician

Disconnect Order  
Each Additional

ALL LOOP TYPES

1. Analyze Order	5 min	5 min
2. Remove Cross-connect (2-mdf & icdf)	2.5 min	2.5 min
5. Complete work request in WFA-DI	2 min	2 min

Steve Hillery STAFF MANAGER  
MAY, 2000

## Install

### 1. Analyze work request.

The COT accesses the WORD/CDOC document.

The COT determines if assignments/equipment requested by the work order are available.

The COT verifies the Circuit Design is complete.

### 2. Complete Cross-Connect.

The COT places the cross-connect(s) between the ICDF and the MDF or DSX frames. The type of loop ordered determines the number of cross-connect needed.

### 3. Perform Loop Qualification

The COT performs a facility test with 77S or comparable test set.

### 4. Record Test Results

The COT records the facility test results in the WFA-C OSSLOG

### 5. Post work request complete in WFA-DL

The COT accesses the DTTC screen in WFA-DL to complete the WFA-DL work request.

### 6. Analyze Due Date work request & call CCTI

The COT analyzes WFADL work request for appointment time and tests then calls the CCT-I to notify they are ready to perform at location.

### 7. Set up for Due Date tests with I&M tech. \*2

COT sets up test equipment for DD tests

### 8. Complete work request with CCT-I \*2

The COT calls the CCT-I to notify the physical work and testing in the Central Office has been complete.

### 9. Complete Continuity Stress Testing

Digital pattern testing end to end over facility

\*2 = Orders with coordinated Due Date testing only

## Disconnect

### 1. Analyze Order.

The COT accesses the WORD/CDOC document.

The COT determines if assignments/equipment requested by the work order are accurate.

The COT verifies the Circuit Design notifies CCT-I of order inaccuracy

### 2. Remove Cross-Connects.

The COT removes the cross-connect(s) between the ICDF and the MDF or DSX frames. The type of loop ordered determines the number of cross-connect that will be removed

### 3. Complete work request in WFA-DL

The COT accesses the DTTC screen in WFA-DL to complete the WFA-DL work request.

ACRONYM	DEFINITION
CCT-I	Customer Communication Technician-Implementer
COOC	CI Prep Document (Central Office version of the WORD document)
COBAC	Central Office Resource Allocation Center
COT	Central Office Technician
CRON	Automated order lead in WFA-DI
CWL	Circuit Work Location (each Central Office location involved on the order)
DD	Due Date Critical Date
DTSC	An Installation or Trouble Work Request screen in WFA-DI
DUSOI	Service Order Installation screen in WFA-DO
DS I&M Technician	Designed Service Installation and Maintenance Technician
DSX	Digital Service Cross-Connect
DVA	Designed, Verified, and Assigned Critical Date
I&M	Installation and Maintenance field forces
ISDF	Interconnector Distributing Frame
LNQ	Local Network Operation (typically includes the Central Office and I&M work forces)
LRAC	Lead Resource Administration Center
MDF	Main Distributing Frame
OCO	Overall Control Office
OSSCN	Circuit Notes screen in WFA-C
OSSCWL	Circuit Work Location screen in WFA-C
OSSLQG	Work Request Log screen in WFA-C
OSSLST	Order List screen in WFA-C
OSSCI	Order Installation screen in WFA-C
OWDDOC	WORD Document screen in WFA-C
SCR	Screening Critical Date
SDC	Service Delivery Coordinator
USW	U S WEST
WFA-C	Work Force Administration-Control Module
WFA-DI	Work Force Administration-Dispatch In Module
WFA-DO	Work Force Administration-Dispatch Out Module
WORD Document	Work Order Record Detail Document



**TAB 39**

## **INTERCONNECT SERVICE CENTER**

Serves as the primary order provisioning contact for Competitive Local Exchange Carrier (CLEC) customers who purchase unbundled network elements products and services (i.e. Number Portability, Unbundled Loop, Unbundled Lineside Port, Resale) from Qwest.

The center provides end-to-end order coordination from request through order completion and serves as the primary liaison for the customer for all downstream organizations.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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**INTERCONNECT SERVICE CENTER  
LOOP SERVICE REQUEST (LSR) PROCESS AND TIME ESTIMATES  
REVIEW  
MAY – JUNE 2001**

**SUBJECT MATTER EXPERTS PROVIDING INPUT TO REVIEW**

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During May and June 2001 a number of conference calls were held to conduct a review of the Interconnect Service Center LSR (Loop Service Request) process and time to issue service orders. The purpose was to assure consistency with assumptions made when estimating times for processes that pertain to unbundled element products.

Key assumptions considered include:

- Forward looking process, 12-18 months if possible
- Time estimate based on average that does not include internal order flow problem solving, system down
- High skilled experience level of subject matter experts making time estimates
- Time estimates should not include supplements to initial order.

IMA flow through was addressed and flow through percentage weightings has been applied to the product that will have flow through.

DVD

June 2001

**Subject: Documentation of flowthrough expectations**

**Date:** Wed, 21 Mar 2001 14:06:41 -0700

**From:** "John Curtis" <jxcurt2@uswest.com>

**Organization:** MSF&W SOFTWARE

**To:** ddeffie@uswest.com, dgotleh@uswest.com, tmillio@uswest.com,

Wendy Jackson <wjacks@uswest.com>

Dan,

Attached is the document we discussed in February.

--

John Curtis

IT Regulatory

Phone: 303-965-6324

Fax : 303-965-0301

---

<u>LSR flow through documentation for cost models.doc</u>	<b>Name:</b> LSR flow through documentation for cost models.doc
	<b>Type:</b> Microsoft Word Document (application/msword)
	<b>Encoding:</b> base64

**LSR flow through - March 9, 2001**

Significant effort has been directed to decreasing the manual handling of competitive local exchange carrier (CLEC) orders.

IMA releases 6.0 (December 2000), release 6.01 (February 2001), release 7.0 (April 2001), release 7.01 (June 2001) and release 8.0 (August 2001) in conjunction with FTS have made (will make) improvements in CLEC order flow through.

While the actual performance of the IMA flow through enhancements may take some time to achieve maximum efficiency, the 271 Benchmarks for OSS testing are being set at a relatively high level. IMA release 7.0 has been selected for testing. For 4 of the wholesale products for which Qwest is establishing SGAT pricing, the Benchmarks have been set as follows: 1) resale POTS = retail parity for POTS order flow through, 2) UNE-P = retail parity for POTS order flow through, 3) unbundled loop = 85% flow through and 4) shared loop = 85% flow through.

The actual experience of Qwest retail flow through ranges from 94.31% to 96.04%, therefore it is reasonable to use a 95% flow through rate where the benchmark is retail parity.

Since these system enhancements are intended to reduce the ISC manual handling of CLEC LSR to the reciprocal of the benchmark, it is reasonable to reflect the benchmark flow through rates in the development of the UNE ordering costs in the Qwest SGAT pricing of the affected products.

The following sections are examples of the business requirements that are being met with the system enhancements.

**SHARED LOOP/SHARED DISTRIBUTION LOOP  
PROCESS, TIME ESTIMATES, PROBABILITIES**

Date: June-2001

From: Linda Miles

Title: Staff Manager-Service Delivery

Interconnect Service Center

**INSTALL**

Work activity begins:	May include these tasks:	First (minutes)	Probability of occurrence (%)
Receive LSR	Reviews LSR for completeness and accuracy. contractual entries (analyze request to determine co-provider, type of order and installation option)	3	100
	Verifies CFA or facility/circuit availability/splitter	3	100
	Exchange Info-Obtain Central Office, name, address and office type. Access Telephone Address Guide to obtain the central office address	4	100
	CPPD-lookup billing USOC's for co-provider	2	100
	Summary Bill List-Look up BTN#, tax code, and Bill date	2	100
	Analyzes request to determine the co-provider, type of order and installation option.	2.5	100
	Verify Qwest end user Customer Service Record to determine if order issuance is applicable to provide the product. If applicable, may include rejecting the LSR.	2	100
	Determine if the end user has Qwest directory advertising	N/A	
	Determine if the end user has Qwest retail contract	N/A	
	Determine critical dates	N/A	
Issue appropriate forms and/or orders	If there is either directory advertising or a retail contract or both, issue the order to remove the information from the account. An estimate of 50% of the accounts will have these.	N/A	50
Customer Request Management (CRM)	Populate required fields	3	100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	3	100
Issue service order	Input line sharing order into service order processor (manually typing and formatting of all orders for billing and provisioning of the loop)	10	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	100
Call Handling	Includes handling calls from other departments working the order.	5	60
Error on Service Order (ESOI)	Handling of problems on the LSR, provisioning issues such as conditioning, facility problems, cable & pair, and typing problems handled by the center.	5	50
<b>DISCONNECT</b>			
Work activity begins:	May include these tasks:	Time use (minutes)	
Receive LSR	Reviews LSR for completeness and accuracy, validate circuit belongs to the co-provider	3	100
	Verifies existing account (accesses CSR in BOSS/CARS) and obtains closing bill address if applicable	2	100
Review FOC	Type, review and submit to customer the Firm Order Confirmation (FOC)	2	100
Issue service order	Input disconnect of line sharing orders into the service order processor (manually typing and formatting of all order for billing and provisioning of the loop)	10	100

Customer Request Management (CRM)	Populate required fields	3	3	100
Service Order Analysis & Control (SOAC/SOP)	Ensure order is successfully distributed to the systems and is ready for provisioning	3	3	100

*Key Assumptions:*

The times documented are forward looking.

The times documented here are average times.

They do not reflect problems encountered during the processing of the service order.

They do not include supplements to the initial order.

These estimates do not include any maintenance or repair time.

This process is as of today and the current functionality if IMA for ordering formatting.

IMA partial order creation. IMA will create a portion of the service order and may vary by Unbubbled Loop product.

Increased experience level in the ISC: ISC has been performing this function for 3 years. The SDC who performed the work activity has been doing this work since 6/8/98.

Today, 1% of the customers send the LSR's via IIS. 99% use IMA to submit their LSR's.

**TAB 40**



## CENTRAL OFFICE

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**Subject: line sharing**

**Date: Fri, 11 Feb 2000 12:18:20 -0700**

**From: Michael Lanoue <mLANOU@uswest.com>**

**Organization: U S WEST Communications, Inc**

**To: ddeffle@uswest.com**

Dan,

A Line Sharing new connect order will require the removal of one jumper (OE to CP on MDF or COSMIC) and the placement of four jumpers (OE to TP & CP to TP on the MDF or COSMIC and TP to Splitter & TP to Splitter on the IDF). A disconnect order for the DATA side only would be just the opposite (remove four jumpers and place one jumper).

Time requirements would include 4 minutes per jumper to place and 2.3 minutes per jumper to remove. Also, 2 minutes per order to perform the load coil detection test.

Mike

**TAB 41**

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DVD  
June 2001

---

Author: <s=Dimanna/g=Marlene/ou=mdimann/o=corcs/p=uswest/a=mci/c=us> at mnet  
Date: 3/5/97 11:13 AM  
Priority: Normal  
To: Dan Deffley at omasd1  
From: Dan Deffley at omasd1  
Subject: Subsequent Order Activity

----- Message Contents -----

Date: 03/05/97 Time: 11:03:03

To: DDEFFLE --OMASD1

DDEFFLE --OMASD1

FROM: Marlene DiManna

SUBJECT: Subsequent Order Activity

This note is in reference to our conversation of last week regarding the time for the SDC for subsequent order activity for a NID (Network Interface Device).

Fifteen minutes is required for this activity, which is the same time needed for for adding channel performance or features on a subsequent order.

Call if you need more.

**TAB 42**

# INSTALLATION

Performs necessary filed work on new orders and changes to existing service including:

- Travel to customer premises
- Cross-connect activity at feeder plant to distribution plant field locations
- Customer premises work activities to connect circuit at the network interface
- Circuit testing as required
- Order completion with LRAC

## TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE

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- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.



Subsequent order activity to replace NID

DS I&M Technician

**NETWORK INTERFACE DEVICE**

Travel to end user premises

21

Customer contact, retrofit or repairs device, complete order with center.

35

A NID Charge applies when ordered subsequent to the installation of a loop.

ALAN BRAEGER - STAFF MANAGER

BILL RODRIGUEZ - STAFF MANAGER

MAY 2000

**TAB 43**

## **SERVICE DELIVERY COORDINATOR**

Wholesale markets – Service Delivery serve as the primary order provisioning contact for CLECs, Interexchange Carriers and Wireless customers who purchase complex wholesale and retail products and services (i.e., Private Line, Feature Group, LIS Trunking, Centrex Resale, Number Portability) from Qwest.

The center teams provide end-to-end order coordination from request through order completion and serve as the primary liaison for the customer for all downstream organizations.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

Subject: Cost Study  
Date: Tue, 21 May 2002 10:37:36 -0600  
From: "Cindy Kalakis" <ckalaki@qwest.com>  
To: ddeffle@uswest.com  
CC: "Terri McQuiston" <tporter@notes.uswc.uswest.com>  
    , "Linda Kae Olsen" <lxolsen@notes.uswc.uswest.com>  
    , "Ronda Bergstedt" <rbergst@notes.uswc.uswest.com>  
    , "Nancy Chapman" <nljohns@notes.uswc.uswest.com>

Dan:

Attached is the cost study spreadsheets for Private Line, Switched Access, LIS and UDIT.

I did a comparison on like functions and it seems we are in synch. There are some differences with the SHNS-SST because of the complexity of the product but I think we are either the same or justifiably different where appropriate between all the products.

If you need to get us all together again to discuss, let me know, I'll be happy to set up a meeting, or you can talk to the Product Process Specialist for each product if you have questions.

Thanks for your patience!

Cindy

(See attached file: SDC TIMES 2002-Summary-all prod.xls)

---

	Name: SDC TIMES 2002-Summary-all prod.xls
SDC TIMES 2002-Summary-all prod.xls	Type: Microsoft Excel Worksheet (application/vnd.ms-excel)
	Encoding: base64

<b>INSTALL</b>		<b>Time Estimates in Minutes</b>					<b>Change</b>	<b>Notes</b>
<b>Item</b>	<b>Work Activity Description</b>	<b>CONVERSION FROM ACCESS</b>	<b>COLLO XFER OF USE</b>	<b>INSTALL FIRST</b>	<b>INSTALL EA ADDL</b>			
Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list			1			<p>This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT.                      *90% of ASRs are mechanical                      This is the time that it would take the SDC to manually input the information on all the EXACT screens.                      *10% of ASRs are manually faxed.                      Entries are made to add order number, circuit ID and intervals to the service order. The address is validated for accuracy. The Qwest EXACT screens are populated in this step.                      This is done 100% of the time.                      This is to verify if CCEA/SCCEA entries are valid.                      This is done 100% of the time.                      This is done 100% of the time.                      *65% of the time                      Not required on new installations - only change orders.                      35% of the time. per Rhonda Bergstadt                      You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR.                      *Mechanical FOC is 90%</p>	
Receive ASR via FAX*	Input ASR into EXACT Manually			10				
Validate ASR in EXACT	Check for the accuracy of the ASR fields and make sure all information is present			10				
Check Credit Info/Security	Check if customer is already established with Qwest or if credit info is required. Check RDLOC screen to validate who owns the collocation.			2				
TIRKS	Check CBLP to validate if slot is spare			3				
TIRKS	Check to make sure the address is premis valid			5				
Validate address in TAG	Check the IABS TCR table to ensure rates are loaded for UDIT for customer's contract.			3				
Validate Contract Rates	Check to see if LOA is necessary. If LOA is needed is it on file or does the SDC need to request a new one.			5				
Verify LOA*	Make sure the circuit ID passed by the customer is the same on our TAXI records. Verify the BAN provided by the customer is accurate and if not accurate locate the correct BAN.			0				
Verify TAXI	If the request is for co-provided service, the SDC must make sure all entries are on the ASR and negotiate dates with the ICO.			8				
Coordinate as ICO	Handling calls from the IXC change to co-provider and from within the company regarding the ASR.			13				
Intra Company Calls	Mechanically confirm the ASR			1				
Mechanical FOC*								
<b>INSTALL</b>		<b>Time Estimates in Minutes</b>						<b>Change</b>
<b>Item</b>	<b>Work Activity Description</b>	<b>CONVERSION FROM ACCESS</b>	<b>COLLO XFER OF USE</b>	<b>INSTALL FIRST</b>	<b>INSTALL EA ADDL</b>			

Manually FOC*	Manually confirm the ASR, print the screen and fax to the customer. Includes the FAX of the DLR.				6			*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *Manual FOC is 10%
Distribute the order to IABS	Send the order through the EXACT/TUF module in TIRKS and into IABS.				1			This is a mechanical process within EXACT. Check for correct rate elements/USOCs and nonrecurring charges application. *Order must be created from scratch
Validate IABS Service order	Check to make sure the service order is complete and accurate.				6			
Distribute Service Order to the SOPs	Send order to RSOLAR, SOLAR or SOPAD. This is automatically done when the order is processed in IABS.				1			
Check SOAC	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS.				3			
Check WFA	Check WFA for completion of service order.				3			
Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.				5			Validate required FIDs are present.
Complete IABS Service Order	Type the correct codes to complete the order in IABS.				1			
Complete EXACT	Type correct information into EXACT and complete the ASR.				1			
Note EXACT	Make any applicable notes in EXACT				2			

**DISCONNECT**

**Time Estimates In Minutes**

Item	Work Activity Description	CONVERSION FROM ACCESS	TRUNKS			Change	Notes
			COLLO XIFER OF USE	DISC FIRST	DISC EA ADDL		
Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list.			1			This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT. This is the time that it would take the SDC to manually input the information on all the EXACT screens.
Receive ASR via FAX	Input ASR into EXACT manually			10			
Verify TAXI	Make sure the circuit ID passed by the customer to be disconnected is the same on our TAXI records. Verify the BAN provided by the carrier is accurate and if not accurate locate the correct BAN.			5			
Validate ASR in EXACT	Make sure all necessary entries are present on the ASR.			5			
Validate in TIRKS	Verify all sub-circuits have been removed if muxed circuit.			3			3 % probability.
Intra-Company Calls	Handling calls from the IXC change to co-provider and from within the company regarding the ASR			5			

Mechanical FOC*	Mechanically confirm the ASR							*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *
Manually FOC*	Manually confirm the ASR, print the screen and fax to the customer. Includes the FAX of the DLR.							
Distribute the order to IABS	Send the order through the EXACT/TUF module in TIRKS and into IABS.							
Validate IABS Service order	Check to make sure the service order is complete and accurate.							* Create order from scratch
Distribute Service Order to the SOPs	Send order to RSOLAR, SOLAR or SOPAD. This is automatically done when the order is processed in IABS.							
Check SOAC	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS.							
Check WFA	Check WFA for completion of service order.							
<b>DISCONNECT</b>		<b>Time Estimates in Minutes</b>						

Item	Work Activity Description	CONVERSION FROM ACCESS	TRUNKS		Change	Notes
			COLLO X/FER OF USE	DISC FIRST		
Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.			5		
Complete IABS Service Order	Type the correct codes to complete the order in IABS.			1		
Complete EXACT	Type correct information into EXACT and complete the ASR.			1		
Note EXACT	Make any applicable notes in EXACT			2		

## **TASK DESCRIPTIONS**

**Receive ASR** - If the ASR is received mechanically the SDC pulls up the ASR number from their work list and begins the next step of validating the ASR.

If the ASR is received manually via FAX the SDC must input all information from the paper copy on to the electronic screens.

**Validate ASR in EXACT** - Validating EXACT screens and reviewing the ASR for errors, adding additional information required for service order processing. Screens may include: ICORD, ICTRK, ICCKT, ICACI and ICNTS.

This includes verifying all information required to issue a 2 point or multiplexed circuit has been received.

**Verify address in TAG** - Check the Telephone Address GUI (TAG) system to verify that the address is premis valid. This eliminates problems downstream for assignments.

**Verify LOA** - Check to see if LOA is necessary. If LOA is needed is it on file or does the SDC need to request a new one.

**Verify Taxi** - Verify circuit ID passed by the customer matches TAXI. Verify any/all sub-circuits removed prior to disconnecting multiplexed circuit.

**Coordinate as ILEC** - Validate appropriate entries in EXACT for co-provided service, coordinate due dates with Exchange Carrier.

**Check TIRKS** - If the request is for a muxed facility the SDC must check TIRKS to determine the name for the circuit. With SST/SHNS verify SCID in TIRKS. If disconnecting multiplexed circuit verify all sub-circuits have been disconnected /moved.

**Call LCON** - All requests ending up at an end-user location must be called to verify wiring location and access information.

**Verify EXACT** - This includes verifying all information required to issue a 2 point or multiplexed circuit has been received.

**Intra-Company Calls** - Handling phone calls from the Interexchange carrier and calls from within the company to resolve issues surrounding the ASR and Service order.

When SST is multiplexed the SDC must also call the project manager for the circuit ID, SCID and due date.



**Mechanical FOC** - Firm Order Confirmation transaction completed in EXACT. Required on all ASRs sent mechanically. Mechanized customers receive automatically when transaction completed. Customers receive the DLR automatically from TIRKS.

**Manually FOC** - On non-electronic ASRs, after FOC task completed, the EXACT screen is printed and either faxed or mailed to the customer. The DLR is pulled from the printer and either faxed or mailed to the customer.

**Order Distribution to IABS** - Complete the command to send the order through the EXACT/TUF translation module and send to IABS.

**Order Validation** - Check the entries that were passed from EXACT/TUF and make sure they are correct.  
Any additional information necessary to process the order.

**Distribute the Service order to the SOPS** - Complete the command to send the order to the Service order processors.

**Check SOAC** - The order must be checked in this database to make sure there are two successes, the order logging and the word logging portion must be successful for the order to then pass to TIRKS.  
If MAP T FID present on order, verify order has NOT passed through SOAC.

**Order Completion** - Check WFA for any additional USOCs that must be added to the service order, note the completion date of the service order.

**Complete IABS service order** - Add any additional billing information to the service order and complete the service order.

**Complete EXACT** - Make appropriate entries in EXACT and complete ASR. Make appropriate entries in EXACT notes.

**Conferred with:**

**Ronda Bergstedt - Process Specialist DS0, DS1 & SHARP/SHNS services**

**Nancy Chapman - Process Specialist DS3 & SST**

**Cindy Kalakis - Process Specialist UDIT**

**Linda Kae Olson - Process Specialist LIS**

**Terri McQuiston - Process Specialist - Switched**

**TAB 44**

## **DESIGN**

- Overall responsibility for RID (Record Issue Date) completion.
- Upholding Qwest design standards
- Assigns interoffice facilities and equipment at the circuit level
- Prepares and distributes WORD (Work Order Record Detail) including DLR (Design Layout Record).
- Ensures that TIRKS (Trunks Integrated Record Keeping System) designs meet the customer expectations.
- Escalates as necessary to ensure pre-RID dates are met.
- Advises Qwest sales forces or order originators of jeopardies as they are discovered.
- Maintains TIRKS database integrity by making design changes as they occur (i.e. cable pair changes, etc.)

## **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

UNBUNDLED DEDICATED INTEROFFICE TRANSPORT EUDIT	COST ELEMENT		COST ELEMENT	
	DSO	% MANUAL PROB	DS1, DS3 OC3, OC12	% MANUAL PROB
<b>DESIGN</b>				
WORK ACTIVITY				
<u>INSTALL</u>				
ORDER HANDLING/SCREENING	5	0.20	5	0.20
GOC ORDER LOG	6	0.20	6	0.20
ENTER WA MASK	5	0.10	5	0.80
PREF LOOP INPUT/DRI	10	0.20	15	0.75
CIRCUIT DESIGN	20	0.10	30	1.00
DISTRIBUTE WORD DOC	2	0.05	2	0.90
<u>DISCONNECT</u>				
ORDER HANDLING/SCREENING	5	0.10	5	0.10
BOC ORDER LOG	6	0.10	6	0.10
ENTER WA MASK	5	0.10	5	0.10
DISCONNECT CIRCUIT	na	na	5	0.10
DISTRIBUTE WORD DOC	2	0.10	2	0.10
<b>NOTE.</b>				
he time estimates and probability percentages listed are forward-looking.				
these work activities are required to process a service request that falls out of the TIRKS system				
mechanized design.				
these are average times. The times assume the technician will not encounter problems during				
the manual process necessary to process the service request.				
<b>SOURCE.</b>				
KATHY PLATTS				
DESIGN CENTER STAFF				
IS				
the same times apply for OC3, OC12 levels.				
ARCH, 2000 process and times appropriate for Extended UDIT				

MULTIPLEXING  DESIGN WORK ACTIVITY	COST ELEMENT		COST ELEMENT		COST ELEMENT		COST ELEMENT		
	UDIT (LIS)	DS0	%	DS1	%	DS1	%	DS3	%
		udit low side	MANUAL PROB	udit high side lis	MANUAL PROB	low side of udit 3/1 max	MANUAL PROB	udit high side lis	MANUAL PROB
<u>INSTALL</u>									
ORDER HANDLING/SCREENING	5	0.20	5	0.20	2	0.20	5	0.20	
GOC ORDER LOG	6	0.20	6	0.20	2	0.20	6	0.20	
ENTER WA MASK	5	0.10	5	0.80	2	0.80	5	0.80	
PREP LOOP INPUT/DRI	10	0.20	15	0.75	2	0.75	15	0.75	
CIRCUIT DESIGN	20	0.10	30	1.00	5	1.00	30	1.00	
DISTRIBUTE WORD DOC	2	0.05	2	0.90	2	0.90	2	0.90	
<u>DISCONNECT</u>									
ORDER HANDLING/SCREENING	5	0.10	5	0.10	2	0.10	5	0.10	
GOC ORDER LOG	6	0.10	6	0.10	2	0.10	6	0.10	
ENTER WA MASK	5	0.10	5	0.10	2	0.10	5	0.10	
DISCONNECT CIRCUIT	5	0.10	5	0.10	2	0.10	5	0.10	
DISTRIBUTE WORD DOC	2	0.10	2	0.10	2	0.10	2	0.10	

**NOTE:**

The time estimates and probability percentages listed are forward-looking to year end 1999.

These work activities are required to process a service request that falls out of the TIRKS system for mechanized design.

These are average times. The times assume the technician will not encounter problems during the manual process necessary to process the service request.

UDIT DS3/DS1 multiplexing requires all orders worked at the same time. A total of 29 orders will be worked.

UDIT DS1/DS0 multiplexing high side and low side orders are worked separately, low side channels may be ordered at different times.

**SOURCE:**

KATHY PLATTS

DESIGN CENTER STAFF

Aug-98

UNBUNDLED DEDICATED INTEROFFICE TRANSPORT REARRANGEMENT	COST ELEMENT		COST ELEMENT	
	DSO	% MANUAL PROB	DS1, DS3 OC3, OC12	% MANUAL PROB
<b>DESIGN</b>				
<b>WORK ACTIVITY</b>				
<u>INSTALL</u>				
ORDER HANDLING/SCREENING	5	100.00	5	100.00
GOC ORDER LOG	6	100.00	6	100.00
ENTER WA MASK	5	100.00	5	100.00
PREP LOOP INPUT/DRI	10	100.00	15	100.00
DISCONNECT CIRCUIT	5	100.00	5	100.00
CIRCUIT DESIGN	20	100.00	30	100.00
DISTRIBUTE WORD DOC	2	100.00	2	100.00

**NOTE.**

The time estimates and probability percentages listed are forward-looking to year end 1999.  
 These work activities are required to process a service request that falls out of the TIRKS system for mechanized design.  
 These are average times. The times assume the technician will not encounter problems during the manual process necessary to process the service request.

**SOURCE.**

KATHY PLATTS  
 DESIGN CENTER STAFF

1/99

3/99 same times apply for OC3, OC12 levels.

10/99 review by Kathy Platts for UDIT Rearrangement cost study. Same times apply.

## PRIVATE LINE SERVICES

Jan-99:
<b>SERVICE DELIVERY DESIGN ANALOG PROCESS</b>
Work Activity Descriptions
<b>INSTALL</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check Service Order Analysis and Control (SOAC) for Request for Manual Assistance (RMA's)
Verify A & Z Location in RDLOC
Access Trunks Integrated Record Keeping System (TIRKS) for Circuit
Check Order for Coordination Time (if not available)
Call Order Originator to ask for Coordination
<b>2. Generic Order Control (GOC) Order Logging</b>
Access TIRKS (Work Authorization (WA), PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged
<b>3. Enter WA Mask</b>
Check Availability of Facilities in TIRKS
Add Required Data to WA Screen
Verify that WA Screen Matches Service Order
Manually input WA Screen
<b>4. Prepare Loop/Design Related Information (DRI) Screen</b>
Verify that Loop Facilities Assignment and Control System (LFACS) Assignments & TIRKS Agree
Check information on LPADM, DRI, LOOP2 and CD Screen
Resolve Design Related Information (DRI) Errors
Resolve Local Loop Errors
Manually load the LPADM, DRI, LOOP2, and CD Screen
<b>5. Circuit Design</b>
Check GCNOTE or PCFLOW for error
Resolve Facility, Assignment or Equipment Issues with Communications Processor (CP)
Resolve Circuit Detail Errors
Build Circuit Detail Document
Jeopardize and Escalate Order
<b>6. Distribute Word document</b>
Distribute Design Document
Resolve any Distribution Errors
Issue Design Layout Record (DLR)
Issue Word Document
<b>DISCONNECT</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check SOAC for RMA's
Verify A & Z Location in RDLOC
Access TIRKS for Circuit
<b>2. GOC Order Logging</b>
Access TIRKS (WA, PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged



**PRIVATE LINE SERVICES**

Jan-99:
<b>SERVICE DELIVERY DESIGN ANALOG PROCESS</b>
Work Activity Descriptions
<b>INSTALL</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check Service Order Analysis and Control (SOAC) for Request for Manual Assistance (RMA's)
Verify A & Z Location in RDLOC
Access Trunks Integrated Record Keeping System (TIRKS) for Circuit
Check Order for Coordination Time (if not available)
Call Order Originator to ask for Coordination
<b>2. Generic Order Control (GOC) Order Logging</b>
Access TIRKS (Work Authorization (WA), PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged
<b>3. Enter WA Mask</b>
Check Availability of Facilities in TIRKS
Add Required Data to WA Screen
Verify that WA Screen Matches Service Order
Manually input WA Screen
<b>4. Prepare Loop/Design Related Information (DRI) Screen</b>
Verify that Loop Facilities Assignment and Control System (LFACS) Assignments & TIRKS Agree
Check information on LPADM, DRI, LOOP2 and CD Screen
Resolve Design Related Information (DRI) Errors
Resolve Local Loop Errors
Manually load the LPADM, DRI, LOOP2, and CD Screen
<b>5. Circuit Design</b>
Check GCNOTE or PCFLOW for error
Resolve Facility, Assignment or Equipment Issues with Communications Processor (CP)
Resolve Circuit Detail Errors
Build Circuit Detail Document
Jeopardize and Escalate Order
<b>6. Distribute Word document</b>
Distribute Design Document
Resolve any Distribution Errors
Issue Design Layout Record (DLR)
Issue Word Document
<b>DISCONNECT</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check SOAC for RMA's
Verify A & Z Location in RDLOC
Access TIRKS for Circuit
<b>2. GOC Order Logging</b>
Access TIRKS (WA, PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged

**TAB 45**

## **CENTRAL OFFICE**

Responsible for service connection in the central office and associated testing and administrative functions. Places cross-connects (jumpers), performs cross-office testing, and provides support to field installation and control center for circuit testing as required.

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

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Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

UDIT NRC PRICING  
 - COT -

INSTALL	
<b>POINT DS0 UDIT</b>	
Analyze Order (2 technicians)	5 min
Contact CCT-I to work order (2 technicians)	na
Complete DS0 cross-connect (2 technicians)	4 min
Perform Line/Drop Testing (2 technicians)	8 min
Complete Conformance Testing (2 technicians)	15 min
Post work request complete in WFA-DI (2 technicians)	2 min
Complete work request with CCT-I (2 technicians)	3 min
<b>POINT DS1 UDIT</b>	
Analyze Order (2 technicians)	5 min
Contact CCT-I to work order (2 technicians)	na
Complete DSX1 cross-connect (2 technicians)	4 min
Place Loopback Test Plug (1 technician)	2 min
Complete Conformance Testing (1 technician)	1 hour
Post work request complete in WFA-DI (2 technicians)	2 min
Complete work request with CCT-I (2 technicians)	3 min
<b>POINT DS3 UDIT</b>	
Analyze Order (2 technicians)	5 min
Contact CCT-I to work order (2 technicians)	na
Complete DSX3 cross-connect (2 technicians)	4 min
Place Loopback Test Plug (1 technician)	2 min
Complete Conformance Testing (1 technician)	1 hour
Post work request complete in WFA-DI (2 technicians)	2 min
Complete work request with CCT-I (2 technicians)	3 min
<b>-HIGH SIDE (1 OFFICE)</b>	
Analyze Order (1 technician)	5 min
Contact CCT-I to work order (1 technician)	na
Complete DSX3 cross-connect (1 technician)	4 min
Place Loopback Test Plug (1 technician)	2 min
Complete Conformance Testing (1 technician)	5 min
Post work request complete in WFA-DI (1 technician)	2 min
Complete work request with CCT-I (1 technician)	3 min
<b>-LOW SIDE (1 OFFICE) - efficiencies for working 28 orders concurrent with high side orders</b>	
Analyze Order (1 technician)-28 DS1s	2 min
Contact CCT-I to work order (1 technician)	na
Complete DSX1 cross-connect (1 technician)-28 DS1s	4 min
Place Loopback Test Plug (1 technician)-28 DS1s	2 min
Complete Conformance Testing (1 technician)	15 min
Post work request complete in WFA-DI (1 technician)-28 DS1s	2 min
Complete work request with CCT-I (1 technician)-28 DS1s	2 min
<b>HIGH SIDE (1 OFFICE)</b>	
Analyze Order (1 technician)	5 min
Contact CCT-I to work order (1 technician)	na
Complete DSX1 cross-connect (1 technician)	4 min
Place Loopback Test Plug (1 technician)	2 min
Complete Conformance Testing (1 technician)	5 min
Post work request complete in WFA-DI (1 technician)	2 min
Complete work request with CCT-I (1 technician)	3 min
<b>-LOW SIDE (1 OFFICE)</b>	
Analyze Order (1 technician)-24 DS0s	5 min
Contact CCT-I to work order (1 technician)	na
Complete DS0 cross-connect (1 technician)-24 DS0s	4 min
Complete Line/Drop testing (1 technician)-24 DS0s	15 min
Post work request complete in WFA-DI (1 technician)-24 DS0s	2 min
Complete work request with CCT-I (1 technician)-24 DS0s	3 min

UDIT NRC PRICING  
 - COT -

DISCONNECT (ALL ORDERS)			
Analyze Order	5 min	2 min	3-1 mux efficiencies
Remove Cross-connect	2.3 min	2.3 min	
Complete work request in WFA-DI	2 min	2 min	3-1 mux efficiencies
RE-ARRANGE ORDER			
Analyze Order (2 technicians)	5 min		
Contact CCT-I to work order (2 technicians)	3 min		
Remove Cross-connect	2.3 min		
Complete DSO cross-connect (2 technicians)	4 min		
Perform Line/Drop Testing (2 technicians)	8 min		
Complete Conformance Testing (2 technicians)	15 min		
Post work request complete in WFA-DI (2 technicians)	2 min		
Complete work request with CCT-I (2 technicians)	3 min		
DUCT TEAM UPDATE			
CINDY BUCKMASTER			
99			

## CENTRAL OFFICE TECNICIAN

INSTALL	
<b>EXTENDED UDIM</b>	
1. Analyze Order (1 technician)	5 min
3. Complete DSX cross-connect (1 technician)	4 min
5. Complete Continuity/Stress tests (1 technician)	1 hour
6. Post work request complete in WFA-DI (1 technician)	2 min

DISCONNECT	
1. Analyze Order	5 min
2. Remove Cross-connect	2.3 min
3. Complete work request in WFA-DI	2 min

COT performs cross connects activities in USW wirecenter. dispatch made to CLEC wirecenter.

Source: Mike Lanuoe - Staff Manager  
Oct-99

**UDIT REARRANGEMENT**

Dual office - 2 technicians involved

Single office - 1 technician involved

<b>RE-ARRANGE ORDER</b>	
1. Analyze Order (2 technicians)	5 min
2. Contact CCT-I to work order (2 technicians)	3 min
3. Remove Cross-connect	2.3 min
4. Complete DSO cross-connect (2 technicians)	4 min
5. Perform Line/Drop Testing (2 technicians)	8 min
6. Complete Conformance Testing (2 technicians)	15 min
7. Post work request complete in WFA-DI (2 technicians)	2 min
8. Complete work request with CCT-I (2 technicians)	3 min

Source: Cindy Buckmaster - Project Manager  
Oct-99

**TAB 46**



## **IMPLEMENTOR**

Has overall control responsibility for provisioning, maintaining, coordination and testing of designed services.

Contacts other centers/technicians for the coordinated effort to complete service order activity requirements.

Tests with central office, field installation personnel as necessary.

Provides test results to customer.

Notify customer of work completed

Complete order in required systems (Work Force Administration)

### **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

UNBUNDLED DEDICATED INTEROFFICE TRANSPORT

	COST ELEMENT	COST ELEMENT	COST ELEMENT
UNBUNDLED DEDICATED INTEROFFICE TRANSPORT	DSO	DS1	DS3
IMPLEMENTOR			
WORK ACTIVITY			
<u>INSTALL</u>			
SCREEN WFA FOR CIRCUIT	10	10	10
VERIFY LNO COMPLETION	10	10	10
TEST CKT	15	0	0
NOTIFY CUSTOMER	5	5	5
COMPLETE CKT IN WFA/C	10	10	10
<u>DISCONNECT</u>			
SCREEN WFA FOR CIRCUIT	5	5	5
CONTACT CUSTOMER	5	5	5
COMPLETE CKT IN WFA/C	5	5	5
<b>NOTE:</b>			
The above information is estimated times for activities performed by the Implementor in the Designed Service Center to support the Dedicated Transport			
The times documented above are average estimates.			
They do not reflect times spent for supplement to the order.			
They do not reflect problems with the order or redesign issues.			
They do not reflect translations or programming problems.			
They do not reflect problems or trouble with systems or with the customer.			
All times are based on a service order with no problems encountered at test & turnup.			
All times represent one ckt per order.			
A full compliment of test are required on the DS3 and DS1. The Central Office Tech will perform these tests.			
The DSO tests will be performed by the Implementor.			
Attached are the functions associated with the steps performed by the Implementor.			
<b>SOURCE:</b>			
Linda Hendricks			
DESIGN CENTER STAFF			
6/98			
Review 5/99 Linda Hendricks			

UNBUNDLED DEDICATED INTEROFFICE TRANSPORT MULTIPLEXING IMPLEMENTOR WORK ACTIVITY	COST ELEMENT		COST ELEMENT	
	DS1/DS0		DS3/DS1	
	HIGH SIDE	LOW SIDE	HIGH SIDE	LOW SIDE
	per order	per order	per order	per order
<u>INSTALL</u>				
SCREEN WFA FOR CIRCUIT	10	10	10	2
VERIFY LNO COMPLETION	10	10	10	10*
TEST CKT	0	0	0	0
NOTIFY CUSTOMER	5	5	5	1*
COMPLETE CKT IN WFA/C	10	10	10	2
* activity occurs once for all 28 orders.				
<u>DISCONNECT</u>				
SCREEN WFA FOR CIRCUIT	5	5	5	2
CONTACT CUSTOMER	5	5	5	1*
COMPLETE CKT IN WFA/C	5	5	5	2
* activity occurs once for all 28 orders.				
<b>NOTE:</b>				
The above information is estimated times for activities performed by the Implementor in the Designed Service Center to support the Dedicated Transport				
The times documented above are average estimates.				
They do not reflect times spent for supplement to the order.				
They do not reflect problems with the order or redesign issues.				
They do not reflect translations or programming problems.				
They do not reflect problems or trouble with systems or with the customer.				
All times are based on a service order with no problems encountered at test & turnup.				
All times represent one ckt per order.				
A full compliment of test are required on the DS3 and DS1. The Central Office Tech will perform these tests.				
The DSO tests are line/drop tests performed by Central Office Tech.				
It is assumed DS0 (low side) orders will not be ordered at same time DS1 (high side) order is worked.				
DS0 orders can be installed on a subsequent basis.				
For DS3/DS1 MUX orders, the high side DS3 order and all 28 low side DS1 orders must be completed at the same time. Efficiencies are gained by working all 28 orders at the same time.				
<b>SOURCE:</b>				
Linda Hendricks				
DESIGN CENTER STAFF				
5/98				
Review 5/99 Linda Hendricks				

EXTENDED UNBUNDLED DEDICATED INTEROFFICE TRANSPORT	COST ELEMENT	
	DS0	DS1/DS3
IMPLEMENTOR WORK ACTIVITY	per order minutes	per order minutes
<u>INSTALL</u>		
SCREEN WFA FOR CIRCUIT	15	15
VERIFY LNO COMPLETION	10	10
COORD TIME WITH CLEC. TECHS TO TEST	20	20
TEST CIRCUIT	15	35
NOTIFY CUSTOMER	5	5
COMPLETE CIRCUIT IN WFA/C	10	10
<u>DISCONNECT</u>		
SCREEN WFA FOR CIRCUIT	5	5
CONTACT CUSTOMER	5	5
COMPLETE CIRCUIT IN WFA/C	5	5

NOTE: The times documented above are average estimates.

They do not reflect times spent for supplement to the order.

They do not reflect problems with the order or redesign issues.

They do not reflect problems or trouble at test, with systems or with the customer.

All times are based on a perfect service order and no problems encountered at test & turnup.

Each circuit is ordered individually and tested individually.

This process applies regardless of whether a dispatch is required or not.

Attached are the functions associated with the steps performed by the Implementor.

SOURCE: LINDA HENDRICKS - STAFF MANAGER

DATE 03/08/01

Review 3/01 Deni Toye, Marlene Mirian

UDIT REARRANGEMENT	COST ELEMENT COST ELEMENT	
	DSO SINGLE DUAL OFFICE	HICAP SINGLE DUAL OFFICE
IMPLEMENTOR WORK ACTIVITY	per order	per order
<u>INSTALL</u>		
SCREEN WFA FOR CIRCUIT	10	10
VERIFY LNO COMPLETION	10	10
TEST CIRCUIT	15	15
NOTIFY CUSTOMER	5	5
COMPLETE CIRCUIT IN WFA/C	10	10

NOTE: The times documented above are average estimates.  
 They do not reflect times spent for supplement to the order.  
 They do not reflect problems with the order or redesign issues.  
 They do not reflect problems or trouble at test, with systems or with the customer.  
 All times are based on a perfect service order and no problems encountered at test & turnup.  
 Each circuit is ordered individually and tested individually.  
 This process applies regardless of whether a dispatch is required or not.  
 Attached are the functions associated with the steps performed by the Implementor.

SOURCE:  
 LINDA HENDRICKS, IMPLEMENTOR CENTER STAFF  
 CINDY BUCKMASTER - PROJECT MANAGER  
 DATE 12/99

## **Install**

### **1. Screen WFA-C for Order accuracy.**

The CCT-I accesses the WFA-C OSSLST (Order List) screen to examine and prioritize order load by Critical Date.

The CCT-I accesses the WORD document on the OWDDOC (WORD Document) screen to examine work request.

The CCT-I locates the installation option of the work request on the WORD document and determines if additional work steps must be created for the Central Office Technician (i.e., DD work activities).

If the order request is for a Coordinated Installation Option, the CCT-I determines the "Appointment Time".

If No "Appointment Time" has been specified, the CCT-I contacts the Service Delivery Coordinator (SDC) via telephone to obtain an "Appointment Time".

Once the "Appointment Time" has been determined, the CCT-I builds the Central Office DD work request on the WFA-C OSSCWL (Circuit Work Location) screen specifying the requested "Appointment Time".

The CCT-I updates the WFA-DO DOSOI (Service Order Installation) screen with the "Appointment Time".

The CCT-I notifies the CORAC and LRAC of the Coordinated work request via a telephone call.

The CCT-I examines the Circuit Details portion of the WORD document for circuit design completeness.

The CCT-I sets any other pertinent Calendar (CAL) events on the WFA-C OSSLST (Order List) screen.

The CCT-I complete the SCR Critical Date on the WFA-C OSSOI (Order Installation) screen.

### **2. Verify LNO completion.**

The CCT-I verifies the LNO (Central Office and/or I&M technician has completed the physical work required on the work request for DVA and DD. Typically, DVA will post automatically at the item level once all of the DVA dates have been met at the Circuit

If CWLs have not been completed by the DVA date, the CCT-I notifies the Central Office to complete the CWLs.

If the physical work cannot be completed, the CCT-I posts a jeopardy against the DVA date. The current Designed Services Jeopardy process is then followed.

If a Coordinated Cut has been requested, the CCT-I will call the Co-Provider to receive and "OK" to begin work.

If the work cannot be completed on DD because the Co-Provider is not ready, the CCT-I places a "C" code jeopardy against the order. The current Designed Services Jeopardy process is then followed.

If the work cannot be completed on DD because of a USW problem, the CCT-I will post the appropriate jeopardy code against the DD. The current Designed Services Jeopardy process is then followed.

The CCT-I makes the appropriate remark entries into the WFA-C OSSLOG (Work Request Log).

### **3A. Monitor Performance Testing.**

The CCT-I monitors and records the test results on the WFA-C OSSCN (Circuit Notes) screen. These test results are obtained by the Central Office technician and the DS I&M technician testing the newly provisioned circuit. The tests performed are listed i

### **3B. Complete Performance Testing.**

In cases where the CCT-I is able to test, the testing is performed with the DS I&M Technician. The CCT-I records the test results on the WFA-C OSSCN (Circuit Notes) screen. The tests performed are listed in the Test Requirement document attached.

### **4. Coordinate Cooperative Testing**

The CCT-I acts as the central contact between the DS I&M technician and the Co-Provider.

The CCT-I notes the tests performed and enters the result information on the WFA-C OSSCN (Circuit Notes) screen.

The CCT-I records any pertinent remarks on the WFA-C OSSLOG (Work Request Log).

### **5. Notify Co-Provider of order completion.**

The CCT-I notifies the Co-Provider that the work request is completed.

The CCT-I informs the Co-Provider of any additional charges that will apply.

The CCT-I provides required test result information to the Co-Provider.

The CCT-I records the Co-Provider order completion contact information on the WFA-C OSSLOG (Work Request Log).

**6. Post order complete in WFA-C.**

The CCT-I posts the Due Date complete on the WFA-C OSSOI (Order Installation) screen.

The CCT-I completes any additional remarks on the WFA-C OSSLOG (Work Request Log).

The CCT-I completes any required electronic billing or rebates in WFA-C.

**Disconnect**

**1. Screen WFA-C for Order accuracy.**

Screen OSSLST

Verify information on WORD document

Refer WORD document back to Designer if not accurate

Check for Co-Provider work locations involved on order

Enter note if Co-Provider involved on OSSCN

Check for remote test capability and hand-off to Designer or LNO if appropriate

Check to see if item is loaded in WFA-DI/DO

Assign Critical Dates

Enter name and number on DOISWR

**2. Contact Co-Provider**

Notify customer work is complete

Add pertinent notes to OSSCN screen

If customer is not available, enter the following information on the OSSOI2 screen

No customer contact

Telephone Number called

**3. Complete circuit in WFA-C**

Check WFA-C OSSLST for critical events

Check DISP for PRE status

Jeopardize and escalate to accommodate customer's need

Add additional billing charges

Complete order in WFA-C

Perform required tests

Contact Designer if required

**TAB 47**



**Subject: UDF CPMC Costing**

**Date: Tue, 05 Jun 2001 16:27:31 -0600**

**From: "James Christian" <jxchri2@uswest.com> Internal**

**Organization: U S WEST Communications, Inc**

**To: ddeffle@uswest.com**

**CC: bbale@uswest.com, cdhuff@uswest.com, aromano@uswest.com**

Attached is a listing of the work activities and times associated with processing a UDF request through the CPMC.

--

Jim Christian  
Sr. Process Analyst-Network  
700 West Mineral Avenue, NM  
Littleton, Colorado 80120  
(303)707-5131 Office  
(303)230-4540 Pager

Disclose and distribute only  
to employees of Qwest and it's  
affiliates having a need to know.

Collocation Project Management Center (CPMC)		Revision
Outside Plant Team -- Unbundled Dark Fiber (UDF)		6-14-01
WORK ACTIVITY FOR PROCESSING AN IRI		Time - min.
Check e-mail for UDF request - open file - review for completeness - save to desktop		2.0
Add basic data		0.5
Determine Planner by using Wire Center Information program		2.0
Add planner data to request and print Wire Center Information sheet		2.0
Compose and forward e-mail to planner - attach to request and forward to planner		2.0
Follow-up call with planner		15.0
Create virtual folders on desktop and move electronic data into folders		0.5
Print copy of e-mail to planner		2.0
Create physical folder and file		3.0
Enter request data into tracking system		5.0
Update response "due back" list		1.0
File physical folder		1.0
Verify status of planners response		15.0
Shared time for common phone calls, meetings, reports,		10.0
Receive and review response from planner		2.0
Add basic data		1.0
Compose and forward e-mail to ATR - attach to request and forward to ATR		2.0
Move file from desktop into results folder		0.5
Print copy of e-mail to ATR		2.0
Place copy of e-mail in physical folder		2.0
	Total time	70.5
WORK ACTIVITY FOR PROCESSING A FVQP		
Check e-mail for UDF request - open file - review for completeness - save to desktop		2.0
Add basic data		0.5
Add planner data to request and print Wire Center Information sheet		2.0
Compose and forward e-mail to planner - attach to request and forward to planner		2.0
Follow-up call with planner		15.0
Create virtual folders on desktop and move electronic data into folders		0.5
Print copy of e-mail to planner		2.0
Create physical folder and file		3.0
Enter request data into tracking system		5.0
Update response "due back" list		1.0
File physical folder		1.0
Verify status of planners response		15.0
Shared time for common phone calls, meetings, reports,		10.0
Receive and review response from planner		2.0
Add basic data		1.0
Compose and forward e-mail to ATR - attach to request and forward to ATR		2.0
Move file from desktop into results folder		0.5
Print copy of e-mail to ATR		2.0
Place copy of e-mail in physical folder		2.0
	Total time	68.5

Collocation Project Management Center (CPMC)		Revision
Outside Plant Team -- Unbundled Dark Fiber (UDF)		6-14-01
<b>WORK ACTIVITY FOR PROCESSING A PROVISIONING REQUEST</b>		
Check e-mail for UDF request - open file - review for completeness - save to desktop		2.0
Add basic data		0.5
Add planner data to request and print Wire Center Information sheet		2.0
Compose and forward e-mail to planner - attach to request and forward to planner		2.0
Follow-up call with planner		15.0
Create virtual folders on desktop and move electronic data into folders		0.5
Print copy of e-mail to planner		2.0
Create physical folder and file		3.0
Enter request data into tracking system		5.0
Update response "due back" list		1.0
File physical folder		1.0
Verify status of planners response		15.0
Shared time for common phone calls, meetings, reports,		10.0
Receive and review response from planner		2.0
Add basic data		1.0
Compose and forward e-mail to ATR - attach to request and forward to ATR		2.0
Move file from desktop into results folder		0.5
Print copy of e-mail to ATR		2.0
Place copy of e-mail in physical folder		2.0
Forward completion data to ATR		2.0
	Total time	70.5
<b>WORK ACTIVITY FOR PROCESSING A DISCONNECT</b>		
		Time - min.
Check e-mail for UDF request - open file - review for completeness - save to desktop		2.0
Add basic data		0.5
<del>Determine Planner by using Wire Center Information program</del>		<del>2.0</del>
Add planner data to request and print Wire Center Information sheet		2.0
Compose and forward e-mail to planner - attach to request and forward to planner		2.0
Follow-up call with planner		15.0
Create virtual folders on desktop and move electronic data into folders		0.5
Print copy of e-mail to planner		2.0
Create physical folder and file		3.0
Enter request data into tracking system		5.0
Update response "due back" list		1.0
File physical folder		1.0
Verify status of planners response		15.0
Shared time for common phone calls, meetings, reports,		10.0
	Total time	61.0

59

**Subject:** Cost2.xls

**Date:** Tue, 29 Jan 2002 15:35:28 -0700

**From:** jleonar@qwest.com

**Organization:** U S WEST Communications, Inc


**To:** Daniel Deffley <ddeffle@qwest.com> , Clyde Nowels <cnowels@qwest.com> ,  
Pat Finley <pjfinle@qwest.com>

Dan,

Attached are the modifications discussed with regard to the "EV" element. I have named the new file "Cost2." The new file "Cost2" supersedes "Cost." Thanks for all of your help on this.

Janet

---

 Cost2.xls	<b>Name:</b> Cost2.xls <b>Type:</b> Microsoft Excel Worksheet (application/vnd.ms-excel) <b>Encoding:</b> base64
---	--

Renamed - DARK FIBER ENGR TIMES DETAIL JAN2002

Line Num	Line Type	Line Description	Time Estimate	Prob #1	Prob #2	Prob #3	Prob #4	Labor Code
	HEADER	DARK FIBER - INITIAL RECORDS INQUIRY SIMPLE						
6100	GROUP	PLANNING (OSP) OR IOF ENGR.						
6100	COMMENT	CHECK CONDUIT AND INNERDUCT AVAILABILITY						
6100	COMMENT	ALSO, CHECK LOCATION OF POI MANHOLE						
1	WORKITEM	Review records and data bases to identify potential UDF capacity	120	1				

Based on discussion with Clyde Nowels on 1/21/01, the 120 minutes on the simple inquiry breaks out as follows: 1

1	WORKITEM	Receive and review request	10	1	0	0		0 34
1	WORKITEM	Access Database - TIRKS	15	1	0	0		0 34
	COMMENT	.50 probability of request not being IOF only						
1	WORKITEM	Access Database - OSP-FM/CIMAGE	10	0.5	0	0		0 34
1	WORKITEM	Navigate to work location in OSP-FM/CIMAGE and find work area	15	0.5	0	0		0 34
1	WORKITEM	Determine fiber availability - check OSP-FM/CIMAGE data and contact Field Engineer	35	0.5	0	0		0 34
1	WORKITEM	Determine fiber availability - check planning tools to determine availability under 9.7.2.5	15	1	0	0		0 34
1	WORKITEM	Determine fiber availability - check TIRKS data	30	1	0	0		0 34
1	WORKITEM	Open and detail proposal in CPD	10	1	0	0		0 34
1	WORKITEM	Compile response to CPMC	10	1	0	0		0 34

---

	HEADER	DARK FIBER - INITIAL RECORDS INQUIRY COMPLEX						
6100	GROUP	OUTSIDE PLANT ENGINEERING - PLANNING (OSP)						
6100	COMMENT	CHECK CONDUIT AND INNERDUCT AVAILABILITY						
6100	COMMENT	ALSO, CHECK LOCATION OF POI MANHOLE						
1	WORKITEM	Check OSP (Outside Plant) records, identify const req., req field engr	150	1	0	0		0 34

Based on discussion with Clyde Nowels on 1/21/01, the 150 minutes on the complex inquiry breaks out as follows: 1

1	WORKITEM	Receive and review request	10	1	0	0		0 34
1	WORKITEM	Access Database - TIRKS	15	1	0	0		0 34
1	WORKITEM	Access Database - OSP-FM/CIMAGE	10	1	0	0		0 34
1	WORKITEM	Navigate to work location in OSP-FM/CIMAGE and find work area	15	1	0	0		0 34
1	WORKITEM	Determine fiber availability - check OSP-FM/CIMAGE data and contact Field Engineer	35	1	0	0		0 34
1	WORKITEM	Determine fiber availability - check planning tools to determine availability under 9.7.2.5	15	1	0	0		0 34
1	WORKITEM	Determine fiber availability - check TIRKS data	30	1	0	0		0 34
1	WORKITEM	Open and detail proposal in CPD	10	1	0	0		0 34
1	WORKITEM	Compile response to CPMC	10	1	0	0		0 34

HEADER DARK FIBER - FIELD VERIFICATION AND QUOTE PREPARATION

6100 GROUP		OUTSIDE PLANT ENGINEERING - PLANNING (OSP)				
1 WORKITEM	Receive and review request	10	1	0	0	0 34
1 WORKITEM	Access Database - TIRKS	15	1	0	0	0 34
1 WORKITEM	Access Database - ospfm/cimage	10	1	0	0	0 34
1 WORKITEM	Navigate to work location in OSPFM/CIMAGE and find work area	15	1	0	0	0 34
1 WORKITEM	Verify fiber counts still spare and available - check TIRKS data	30	1	0	0	0 34
1 WORKITEM	Verify fiber counts still spare and available - create work prints	60	1	0	0	0 34
1 WORKITEM	Verify fiber counts still spare and available - open and detail proposal in CPD	90	1	0	0	0 34
1 WORKITEM	Verify fiber counts still spare and available - prepare work package in CPD	30	1	0	0	0 34
1 WORKITEM	Send package to field engineer	5	1	0	0	0 34
1 WORKITEM	Review returned information from field engr for modifications from actual or records errors	45	1	0	0	0 34
1 WORKITEM	Compile response to CPMC for field findings	30	1	0	0	0 34
1 WORKITEM	Send field verification info received from field engr to records center for OSP records update	15	1	0	0	0 34

Based on discussion with Clyde Nowels on 1/21/01, the 50 engineering minutes displayed below would not be recovered if an IRI were not performed, please add to the CRS.

1 WORKITEM	Determine fiber availability - check OSP-FM/CIMAGE data and contact Field Engineer	35	1	0	0	0 34
1 WORKITEM	Determine fiber availability - check planning tools to determine availability under 9.7.2.5	15	1	0	0	0 34

Based on meeting 01/15/02, the following CPMC item also needs to be added to the CRS.

3 WORKITEM	Determine planner by using wire center information program	2.0	1			43
------------	--	-----	---	--	--	----

Dan, I do not understand how the IOF time overlaps, I will send a copy to Jim Christian to get with you.

FVQP

6100 GROUP		IOF TACTICAL PLANNER				
6100 COMMENT	Assist Outside Plant Engineering as required					
6100 COMMENT	.5 prob is percent of time splice point inquiry made versus structure inquiry.					
1 WORKITEM	Verify TIRKS and planned IOF job if OSP has difficulty in locating IOF fibers	15	0.5	0	0	0 13
Complex IRI						
6100 COMMENT	Verify records and planned IOF jobs					
1 WORKITEM	Work with OSP Plant Engineering to determine if there are IOF fibers avail for MID POINT meet	15	0.5	0	0	0 13
2 WORKITEM	Verify for spare IOF fibers if CO-CO fibers are required (time per Central Office analyzed)	15	0.5	2	0	0 13

HEADER	DARK FIBER - ENGINEERING VERIFICATION
0 ADD	
2 GROUP	OUTSIDE PLANT ENGINEERING (OSP) - PLANNING

**TAB 48**

**Subject: Time for CMC and Const.UDF**

**Date: Fri, 28 Apr 2000 12:15:10 -0600**

**From: William Savage III <wsavage@uswest.com>**

**Organization: U S WEST Communications, Inc**


**To: ddeffle@uswest.com**


Dan,

Here are the Tme increments for the CMC and the Splicers to Field Verify at a Splice Point.

Sorry I am late,  
Bill

William Savage  
Process Mngr.  
303 707 7465

 Time Increments for the CMC.doc	<b>Name:</b> Time Increments for the CMC.doc <b>Type:</b> Microsoft Word Document (application/msword) <b>Encoding:</b> base64
---	--

 Time Increments for the Splicer.doc	<b>Name:</b> Time Increments for the Splicer.doc <b>Type:</b> Microsoft Word Document (application/msword) <b>Encoding:</b> base64
---	--



6100	GROUP	IOF TACTICAL PLANNER (Chuck Frauenfeld)							
6100	COMMENT	Assist Outside Plant Engineering as required							
6100	COMMENT	.5 prob is percent of time splice point inquiry made versus structure inquiry.							
1	WORKITEM	Verify TIRKS and planned IOF job if OSP has difficulty in locating IOF fibers	15	0.5	0	0	0	0	13
6100	GROUP	CMC (BILL SAVAGE) TEST							
6100	COMMENT	.5 prob is percent of time splice point inquiry made versus structure inquiry.							
1	WORKITEM	Identify issues at the proposed location.	87	0.5	0	0	0	0	11
6100	GROUP	SPLICER (BILL SAVAGE) TEST TEST TEST							
6100	COMMENT	.5 prob is percent of time splice point inquiry made versus structure inquiry.							
6100	COMMENT	2 probability represents 2 splice technicians involvement and 2 fiber pairs.							
1	WORKITEM	Travel time in metro area	60	0.5	2	0	0	0	11
1	WORKITEM	Setup for conformance test	150	0.5	2	0	0	0	11
1	WORKITEM	Conformance test per fiber	11	0.5	2	2	0	0	11

**TAB 49**

# **SERVICE DELIVERY COORDINATOR**

Wholesale markets – Service Delivery serve as the primary order provisioning contact for CLECs, Interexchange Carriers and Wireless customers who purchase complex wholesale and retail products and services (i.e., Private Line, Feature Group, LIS Trunking, Centrex Resale, Number Portability) from Qwest.

The center teams provide end-to-end order coordination from request through order completion and serve as the primary liaison for the customer for all downstream organizations.

## **TIME ESTIMATES AND PROBABILITIES OF OCCURRENCE**

Nonrecurring cost studies are developed to include work activity time estimates and probabilities of occurrence as determined by Subject Matter Experts (SME) that represent a work center or work group identified in the processing and provisioning of a service. The SME is a recognized expert in regard to the processes and has experience with the work activities being estimated and in addition will consult with other subject matter experts that either manage or currently perform the work activities being studied.

Instructions provided to the SME's for the determination of time, estimates and probability of occurrence include the following key assumptions:

- The time estimates and probability of occurrence are forward-looking. If possible, a 12-18 month time horizon should be considered. Anticipated process efficiencies and/or mechanization are examples of forward-looking assumptions the estimates are to include.
- The time estimates are based on an average that does not include problems encountered during the work activities to process the service order. System downtime or times spent resolving internal order flow procedures are examples of time that is excluded.
- The time estimates do not include supplements to the initial order.
- The time estimates do not include any maintenance or repair times.

**Subject: Confirmation of upfront UDF Provisioning tasks**

**Date: Tue, 28 May 2002 07:56:43 -0600**

**From: "Pat Finley" <pjfinle%USWEST@notes.uswc.uswest.com>**

**To: "Daniel V Deffley" <ddeffle@uswest.com>**

**CC: "Candace Mowers" <cmowers@notes.uswc.uswest.com>**

Dan, this letter is to confirm that coincidental with ASR provisioning mechanization of UDF, the CPMC is not longer involved in the order to install dark fiber. This became available as of April 5, 2002. The SDCs (Service Delivery Coordinators) in the Wholesale Centers in Des Moines and Salt Lake City now receive the ASRs from CLECS, process the request and distribute the service order to downstream departments via IABS.

The process is exactly the same as what occurs for UDIT, which is also provisioned via the ASR. As I understand it, the SDCs replace the work that was performed by the Project Managers in the CPMC. If you have any other questions, I'm on 303 896-8466.

Subject: Cost Study  
Date: Tue, 21 May 2002 10:37:36 -0600  
From: "Cindy Kalakis" <ckalaki@qwest.com>  
To: ddeffle@uswest.com  
CC: "Terri McQuiston" <tporter@notes.uswc.uswest.com>  
 , "Linda Kae Olsen" <lxolsen@notes.uswc.uswest.com>  
 , "Ronda Bergstedt" <rbergst@notes.uswc.uswest.com>  
 , "Nancy Chapman" <njohns@notes.uswc.uswest.com>

Dan:

Attached is the cost study spreadsheets for Private Line, Switched Access, LIS and UDIT.

I did a comparison on like functions and it seems we are in synch. There are some differences with the SHNS-SST because of the complexity of the product but I think we are either the same or justifiably different where appropriate between all the products.

If you need to get us all together again to discuss, let me know, I'll be happy to set up a meeting, or you can talk to the Product Process Specialist for each product if you have questions.

Thanks for your patience!

Cindy

(See attached file: SDC TIMES 2002-Summary-all prod.xls)

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	Name: SDC TIMES 2002-Summary-all prod.xls
SDC TIMES 2002-Summary-all prod.xls	Type: Microsoft Excel Worksheet (application/vnd.ms-excel)
	Encoding: base64

<b>INSTALL</b>		<b>Time Estimates In Minutes</b>					<b>Notes</b>
<b>Item</b>	<b>Work Activity Description</b>	<b>CONVERSION FROM ACCESS</b>	<b>COLLO X/FER OF USE</b>	<b>TRUNKS</b>		<b>Change</b>	
				<b>INSTALL FIRST</b>	<b>INSTALL EA ADDL</b>		
Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list			1			This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT. *90% of ASRs are mechanical
Receive ASR via FAX*	Input ASR into EXACT Manually			10			This is the time that it would take the SDC to manually input the information on all the EXACT screens. *10% of ASRs are manually faxed.
Validate ASR in EXACT	Check for the accuracy of the ASR fields and make sure all information is present			10			Entries are made to add order number, circuit ID and intervals to the service order. The address is validated for accuracy. The Qwest EXACT screens are populated in this step.
Check Credit Info/Security	Check if customer is already established with Qwest or if credit info is required.			2			This is done 100% of the time.
TIRKS	Check RDLOC screen to validate who owns the collocation.			3			
TIRKS	Check CBLP to validate if slot is spare			5			This is to verify if CCEA/SCCEA entries are valid.
Validate address in TAG	Check to make sure the address is premis valid			3			This is done 100% of the time.
Validate Contract Rates	Check the IABS TICR table to ensure rates are loaded for UDIT for customer's contract.			3			This is done 100% of the time.
Verify LOA*	Check to see if LOA is necessary. If LOA is needed is it on file or does the SDC need to request a new one.			5			*65% of the time
Verify TAXI	Make sure the circuit ID passed by the customer is the same on our TAXI records. Verify the BAN provided by the cUSTOMER is accurate and if not accurate locate the correct BAN.			0			Not required on new installations - only change orders.
Coordinate as ICO	If the request is for co-provided service, the SDC must make sure all entries are on the ASR and negotiate dates with the ICO.			8			35% of the time. per Rhonda Bergstadt
Intra Company Calls	Handling calls from the IXC change to co-provider and from within the company regarding the ASR.			13			
Mechanical FOC*	Mechanically confirm the ASR			1			You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90%
<b>INSTALL</b>		<b>Time Estimates In Minutes</b>					<b>Notes</b>
<b>Item</b>	<b>Work Activity Description</b>	<b>CONVERSION FROM ACCESS</b>	<b>COLLO X/FER OF USE</b>	<b>TRUNKS</b>		<b>Change</b>	
				<b>INSTALL FIRST</b>	<b>INSTALL EA ADDL</b>		

Manually FOC*	Manually confirm the ASR, print the screen and fax to the customer. Includes the FAX of the DLR.				6			*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *Manual FOC is 10%
Distribute the order to IABS	Send the order through the EXACT/TUF module in TIRKS and into IABS.				1			This is a mechanical process within EXACT. Check for correct rate elements/USOCs and nonrecurring charges application. *Order must be created from scratch
Validate IABS Service order	Check to make sure the service order is complete and accurate.				6			
Distribute Service Order to the SOPs	Send order to RSOLAR, SOLAR or SOPAD. This is automatically done when the order is processed in IABS.				1			
Check SOAC	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS.				3			
Check WFA	Check WFA for completion of service order.				3			
Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.				5			
Complete IABS Service Order	Type the correct codes to complete the order in IABS.				1			
Complete EXACT	Type correct information into EXACT and complete the ASR.				1			
Note EXACT	Make any applicable notes in EXACT				2			

**DISCONNECT**

**Time Estimates in Minutes**

Item	Work Activity Description	CONVERSION FROM ACCESS	TRUNKS				Change	Notes
			COLLO X/FER OF USE	DISC FIRST	DISC EA ADDL			
Receive ASR mechanically	ASR is received mechanically through EXACT on a mechanized work list.			1			This is the length of time it takes the SDC to pull up the ASR by ASR number in EXACT. This is the time that it would take the SDC to manually input the information on all the EXACT screens.	
Receive ASR via FAX	Input ASR into EXACT manually			10				
Verify TAXI	Make sure the circuit ID passed by the customer to be disconnected is the same on our TAXI records. Verify the BAN provided by the carrier is accurate and if not accurate locate the correct BAN.			5				
Validate ASR in EXACT	Make sure all necessary entries are present on the ASR.			5				
Validate in TIRKS	Verify all sub-circuits have been removed if muxed circuit.			3			3 % probability.	
Intra-Company Calls	Handling calls from the IXC change to co-provider and from within the company regarding the ASR			5				

Mechanical FOC*	Mechanically confirm the ASR									*You can only do one of these on an ASR. You cannot mechanically and manually FOC the same ASR. *Mechanical FOC is 90% *
Manually FOC*	Manually confirm the ASR, print the screen and fax to the customer. Includes the FAX of the DLR.									
Distribute the order to IABS	Send the order through the EXACT/TUF module in TIRKS and into IABS.									
Validate IABS Service order	Check to make sure the service order is complete and accurate.									* Create order from scratch
Distribute Service Order to the SOPs	Send order to RSOLAR, SOLAR or SOPAD. This is automatically done when the order is processed in IABS.									
Check SOAC	Check the SOAC database for 3 success messages. This means the order has logged into TIRKS.									
Check WFA	Check WFA for completion of service order.									
<b>DISCONNECT</b>		<b>Time Estimates in Minutes</b>								
		<b>TRUNKS</b>								

Item	Work Activity Description	CONVERSION FROM ACCESS	COLLO X/FER OF USE	DISC FIRST	DISC EA ADDL	Change	Notes
Check IABS Service Order	Add any additional information from WFA that pertains to the service order. Make sure IABS service order is accurate for billing.			5			
Complete IABS Service Order	Type the correct codes to complete the order in IABS.			1			
Complete EXACT	Type correct information into EXACT and complete the ASR.			1			
Note EXACT	Make any applicable notes in EXACT			2			



## **TASK DESCRIPTIONS**

**Receive ASR** - If the ASR is received mechanically the SDC pulls up the ASR number from their work list and begins the next step of validating the ASR.

If the ASR is received manually via FAX the SDC must input all information from the paper copy on to the electronic screens.

**Validate ASR in EXACT** - Validating EXACT screens and reviewing the ASR for errors, adding additional information required for service order processing. Screens may include: ICORD, ICTRK, ICCKT, ICACI and ICNTS.

This includes verifying all information required to issue a 2 point or multiplexed circuit has been received.

**Verify address in TAG** - Check the Telephone Address GUI (TAG) system to verify that the address is premis valid. This eliminates problems downstream for assignments.

**Verify LOA** - Check to see if LOA is necessary. If LOA is needed is it on file or does the SDC need to request a new one.

**Verify Taxi** - Verify circuit ID passed by the customer matches TAXI. Verify any/all sub-circuits removed prior to disconnecting multiplexed circuit.

**Coordinate as ILEC** - Validate appropriate entries in EXACT for co-provided service, coordinate due dates with Exchange Carrier.

**Check TIRKS** - If the request is for a muxed facility the SDC must check TIRKS to determine the name for the circuit. With SST/SHNS verify SCID in TIRKS. If disconnecting multiplexed circuit verify all sub-circuits have been disconnected /moved.

**Call LCON** - All requests ending up at and end-user location must be called to verify wiring location and access information.

**Verify EXACT** - This includes verifying all information required to issue a 2 point or multiplexed circuit has been received.

**Intra-Company Calls** - Handling phone calls from the Interexchange carrier and calls from within the company to resolve issues surrounding the ASR and Service order.

When SST is multiplexed the SDC must also call the project manager for the circuit ID, SCID and due date.

**Mechanical FOC** - Firm Order Confirmation transaction completed in EXACT. Required on all ASRs sent mechanically. Mechanized customers receive automatically when transaction completed. Customers receive the DLR automatically from TIRKS.

**Manually FOC** - On non-electronic ASRs, after FOC task completed, the EXACT screen is printed and either faxed or mailed to the customer. The DLR is pulled from the printer and either faxed or mailed to the customer.

**Order Distribution to IABS** - Complete the command to send the order through the EXACT/TUF translation module and send to IABS.

**Order Validation** - Check the entries that were passed from EXACT/TUF and make sure they are correct.

Any additional information necessary to process the order.

**Distribute the Service order to the SOPS** - Complete the command to send the order to the Service order processors.

**Check SOAC** - The order must be checked in this database to make sure there are two successes, the order logging and the word logging portion must be successful for the order to then pass to TIRKS. If MAP T FID present on order, verify order has NOT passed through SOAC.

**Order Completion** - Check WFA for any additional USOCs that must be added to the service order, note the completion date of the service order.

**Complete IABS service order** - Add any additional billing information to the service order and complete the service order.

**Complete EXACT** - Make appropriate entries in EXACT and complete ASR. Make appropriate entries in EXACT notes.

**Conferred with:**

**Ronda Bergstedt - Process Specialist DS0, DSI & SHARP/SHNS services**

**Nancy Chapman - Process Specialist DS3 & SST**

**Cindy Kalakis - Process Specialist UDIT**

**Linda Kae Olson - Process Specialist LIS**

**Terri McQuiston - Process Specialist - Switched**

COST ELEMENT		
DARK FIBER	PER OCCURRENCE	%
	PER PAIR	MANUAL
	PER ROUTE	PROB
<b>DESIGN</b>		
<b>WORK ACTIVITY</b>		
<u>INSTALL</u>		
ORDER HANDLING/SCREENING	5	100
GOC ORDER LOG	6	100
ENTER WA MASK	5	100
PREP LOOP INPUT/DRI	15	100
CIRCUIT DESIGN	30	100
DISTRIBUTE WORD DOC	2	100
<u>DISCONNECT</u>		
ORDER HANDLING/SCREENING	5	100
GOC ORDER LOG	6	100
ENTER WA MASK	5	100
DISCONNECT CIRCUIT	5	100
DISTRIBUTE WORD DOC	2	100
<b>NOTE:</b>		
The time estimates and probability percentages listed are forward-looking.		
These work activities are required to process a service request that falls out of the TIRKS system for mechanized design.		
These are average times. The times assume the technician will not encounter problems during the manual process necessary to process the service request.		
<b>SOURCE:</b>		
KATHY PLATTS		
DESIGN CENTER STAFF		
1/99		
MAY 2000 Per Kathy Platts, these times and probabilities are appropriate for Dark Fiber order processing. No flow through opportunity exists.		

## PRIVATE LINE SERVICES

Jan-99
<b>SERVICE DELIVERY DESIGN ANALOG PROCESS</b>
Work Activity Descriptions
<b>INSTALL</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check Service Order Analysis and Control (SOAC) for Request for Manual Assistance (RMA's)
Verify A & Z Location in RDLOC
Access Trunks Integrated Record Keeping System (TIRKS) for Circuit
Check Order for Coordination Time (if not available)
Call Order Originator to ask for Coordination
<b>2. Generic Order Control (GOC) Order Logging</b>
Access TIRKS (Work Authorization (WA), PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged
<b>3. Enter WA Mask</b>
Check Availability of Facilities in TIRKS
Add Required Data to WA Screen
Verify that WA Screen Matches Service Order
Manually input WA Screen
<b>4. Prepare Loop/Design Related Information (DRI) Screen</b>
Verify that Loop Facilities Assignment and Control System (LFACS) Assignments & TIRKS Agree
Check information on LPADM, DRI, LOOP2 and CD Screen
Resolve Design Related Information (DRI) Errors
Resolve Local Loop Errors
Manually load the LPADM, DRI, LOOP2, and CD Screen
<b>5. Circuit Design</b>
Check GCNOTE or PCFLOW for error
Resolve Facility, Assignment or Equipment Issues with Communications Processor (CP)
Resolve Circuit Detail Errors
Build Circuit Detail Document
Jeopardize and Escalate Order
<b>6. Distribute Word document</b>
Distribute Design Document
Resolve any Distribution Errors
Issue Design Layout Record (DLR)
Issue Word Document
<b>DISCONNECT</b>
<b>1. Order Handling/Screening</b>
Check for Order Accuracy
Check SOAC for RMA's
Verify A & Z Location in RDLOC
Access TIRKS for Circuit
<b>2. GOC Order Logging</b>
Access TIRKS (WA, PCFLOW, GCNOTE)
Verify Order in Service Processor
Screen and Log GOC
Put Remarks in GCNOTE Order Manually Logged

### NOTICE

The information contained herein is confidential and proprietary and should not be disclosed to unauthorized persons. It is meant for use by authorized representatives of Qwest, only.

PRIVATE LINE SERVICES

<b>3. Enter WA Mask</b>					
Verify Facilities in TIRKS					
Add Required Data to WA Screen					
Verify that WA Screen Matches Service Order					
Manually input WA Screen					
<b>4. Disconnect Circuit</b>					
Check GCNOTE or PCFLOW for error					
Resolve Facility, Assignment or Equipment Issues with CP					
Resolve Circuit Detail Document					
Jeopardize and Escalate Order					
<b>5. Distribute Word Document</b>					
Distribute Design Document					
Resolve any Distribution Errors					
Issue DLR					
Issue Word Document					

Line Type	Line Description	Time Estimate	Prob #1	Prob #2	Prob #3	Prob #4	Labor Code
HEADER	<b>OPTICAL CROSS CONN - PER FIBER PAIRS CONN AT CENTRAL OFFICE</b>						
COMMENT	( MUST BE ORDERED AT THE SAME TIME AS DARK FIBER REQUEST )						
ADD							
GROUP	<b>CENTRAL OFFICE (CO)</b>						
COMMENT	REVIEW SERVICE ORDER	5	1	0	0	0	09
COMMENT	COMPLETE FIBER CROSS-CONNECT	4	1	0	0	0	09
WORKITEM	TAG FIBER PAIRS AT CO, CIRCUIT LABELS PLACED	2.5	1	0	0	0	09
DISCONNECT							
GROUP	<b>CENTRAL OFFICE (CO)</b>						
WORKITEM	REVIEW SERVICE ORDER	5	1	0	0	0	09
WORKITEM	DISCONNET FIBER CROSS-CONNECT	2.3	1	0	0	0	09
WORKITEM	REMOVE FIBER PAIR TAGS AT CO	2.5	1	0	0	0	09
Dark Fiber order process and time estimates provided by staff experts during product team meetings held during course of cost study development period.							
SOURCE	Tim Francis - Staff Manager						
Jun-00	Steve Hilleary - Staff Manager						
	Mike Hummer - Product Manager						

Line Type	Line Description	Time Estimate	Prob #1	Prob #2	Prob #3	Prob #4	Labor Code
HEADER	<b>OPTICAL CROSS CONN - PER FIBER PAIRS CONN AT CENTRAL OFFICE</b>						
COMMENT	( MUST BE ORDERED AT THE SAME TIME AS DARK FIBER REQUEST )						
ADD							
GROUP	<b>CENTRAL OFFICE (CO)</b>						
COMMENT	REVIEW SERVICE ORDER	5	1	0	0	0	09
COMMENT	COMPLETE FIBER CROSS-CONNECT	4	1	0	0	0	09
WORKITEM	TAG FIBER PAIRS AT CO, CIRCUIT LABELS PLACED	2.5	1	0	0	0	09
DISCONNECT							
GROUP	<b>CENTRAL OFFICE (CO)</b>						
WORKITEM	REVIEW SERVICE ORDER	5	1	0	0	0	09
WORKITEM	DISCONNET FIBER CROSS-CONNECT	2.3	1	0	0	0	09
WORKITEM	REMOVE FIBER PAIR TAGS AT CO	2.5	1	0	0	0	09
Dark Fiber order process and time estimates provided by staff experts during product team meetings held during course of cost study development period.							
SOURCE	Tim Francis - Staff Manager						
Jun-00	Steve Hilleary - Staff Manager						
	Mike Hummer - Product Manager						



## DARK FIBER TIMES

Line Description	Time Estimate FIRST	Prob	Time Estimate EA ADDL	Prob
<b>DARK FIBER NRC PER OCCURRENCE, PER ROUTE</b>				
<b>FIELD INSTALLATION - INSTALLATION</b>				
2 probability is number of technicians dispatched				
ANALYZE ORDER	5	2	5	2
TRAVEL TIME TO CUSTOMER LOCATIONS - 2 LOCATIONS	21	2	NA	-
LOCATE TERMINAL - 2 LOCATIONS	15	2	NA	-
TEST FIBER - 2 TERMINATING LOCATIONS	30	2	30	2
TAG FIBER PAIRS - 2 LOCATIONS	5	2	5	2
NOTIFY IMPLEMENTOR WHEN COMPLETED (WFA)	5	1	5	1
<b>FIELD INSTALLATION - DISCONNECT</b>				
2 probability is number of technicians dispatched				
ANALYZE ORDER	5	2	5	2
TRAVEL TIME TO CUSTOMER LOCATIONS - 2 LOCATIONS	21	2	NA	-
LOCATE TERMINAL - 2 LOCATIONS	15	2	NA	-
REMOVE FIBER PAIRS TAGS - 2 LOCATIONS	5	2	5	2
NOTIFY IMPLEMENTOR WHEN COMPLETED (WFA)	5	1	5	1
Jun-00				
Process and time estimates provided by product team members during cost study development.				
Sources:				
Mike Hummer - Product Manager				
Steve Nelson - Project Manager				
Tim Francis - Staff Manager				
Alan Breager - Staff Manager				
Bill Rodrigues - Staff Manager				