FairPoint Cutover Monitoring
Status Report
The Liberty Consulting Group
June 6, 2008

Overview of Monitoring Activities

During May, the Liberty Consulting Group ("Liberty") continued it normal weekly activities: observation of the Tuesday Capgemini and FairPoint project status calls, holding Wednesday conference calls with FairPoint to discuss status, and holding Thursday briefing calls with representatives from the three state regulatory staffs. Representatives from Verizon have now joined the Tuesday and Wednesday calls. Liberty also continued to review documentation and results provided by Capgemini and FairPoint. In addition, Liberty visited Atlanta, GA to discuss test case status and observe execution of system test cases. Liberty also observed and participated in Maine E911 project status meetings and the Wholesale User Forum held via webex on May 28. Most recently, from June 3-5, Liberty observed user acceptance testing by FairPoint employees in Manchester, NH.

On May 21, Liberty issued a draft assessment of FairPoint's cutover readiness verification plan. The regulators in all three states requested comments on this draft report, and Liberty received these comments on May 30.

Overview of Status

1. Operational Support System Testing.

   To assess compliance with cutover readiness criteria for operational support systems, Liberty is tracking four components of operational support system testing: functional testing, user acceptance testing, CLEC testing, and performance testing.

   a. Functional Testing.

   Liberty's monitoring of functional operational support system testing has and will continue to focus principally on the so-called system tests. These are the tests of transactions that involve linked systems and include test cases for full end-to-end system processes. As noted in Liberty's draft assessment of FairPoint's cutover readiness plan, the acceptance criteria for system testing are as follows:
   - 100 percent of tests are executed.
   - There are no open severity 1 defects and no open severity 2 defects without acceptable business workarounds.
   - The cumulative effect of defects (for all severity levels) across all testing (system, UAT, CLEC) resulting in necessary workarounds must be quantified and not exceed 50 incremental headcount.

- All open defects have been assigned target fix dates.
- Required workarounds are subsequently tracked under method and procedure development.

The following tables show the status for system test cases as of June 3. This status now includes approximately 200 additional test cases that Capgemini added to the suite of system test cases on May 30, in part to address deficiencies that Liberty had identified. As is true for the other operational support system testing, the system testing is insufficiently far along for the last three acceptance criteria to be relevant, and therefore FairPoint and Capgemini appropriately do not intend to expend resources tracking these three criteria until the system testing is close to completion.

System Test Execution Status
(As of June 3)

Functional Domain	Planned Test Cases	Executed Test Cases	Passed Test Cases	Failed Test Cases
Billing and Collection	79	28 (35%)	4	4
Pre-Ordering and Standalone Ordering	263	109 (41%)	92	17
Ordering and Service Fulfillment (Provisioning)	585	57 (10%)	8	20
Plant and Construction	5	5 (100%)	5	0
Service Assurance (Maintenance and Repair)	111	97 (87%)	86	8
Support Systems (Finance, Human Resources, Supply Chain Management)	15	10 (67%)	10	0
Total	1058	306 (29%)	205	49

The system tests have uncovered defects as follows:

Defect Status from System Testing
(As of June 3)

Open Severity 1 Defects	Open Severity 2 Defects	Total Open Defects (All Severity Levels)
4	49	314

By comparison, as of May 26 (one week earlier), Capgemini had executed only 12 percent of the 852 system test cases that had existed at that time, demonstrating a significant improvement in the execution rate during the past week. However, the challenge to complete all of the remaining test cases with sufficient success to demonstrate cutover readiness by early July is substantial. Liberty notes that the largest category of test cases that remain, Ordering and Service Fulfillment, contains the most complex test cases, those involving the largest number of system applications, and those with the largest number of individual steps in the test case execution.

For some functional domains (Billing and Collection, Ordering and Service Fulfillment, and Service Assurance), the number of test cases executed exceeds the sum of the number of passed and failed test cases. The difference represents test cases that fall into a category Capgemini calls "passed with exception." These are test cases where the testers identified defects in the execution but were able to complete the tests, sometimes through bypassing test steps. Although it is a reasonable testing procedure to complete test cases in this manner so that they can be used for helping to detect any downstream defects that might exist beyond the steps that are blocked, it is important that these test cases not be considered as passed and therefore neglected. Such test cases will need to be re-executed when the defects are resolved in order to certify that the defect is fixed and the test case can be completed as designed. Liberty understands that it is Capgemini's procedure to do so and has observed that such retesting has been performed.

Despite the significant recent addition to the suite of system test cases, Liberty has noted to FairPoint and Capgemini some areas where deficiencies appear to remain. Liberty anticipates that addressing these deficiencies will add about 20 to 40 more test cases to the system test case suite. In addition, a very important testing item that is currently missing is an acceptable testing strategy for E911.

In addition, as pointed out in Liberty's draft assessment of the FairPoint cutover readiness verification plan, we believe it is also necessary to successfully complete all the lower level functional tests in addition to the system tests: the product (application-level) and integration (paired linked application) tests. Based on the latest information available to Liberty through reports provided in mid-May, several hundred of these tests also remained to be executed and there were open defects associated with the tests that have been executed. Liberty will need an update on the status of these tests before we can assess the significance of any execution gaps that might remain.

b. <u>User Acceptance Testing</u>.

The User Acceptance Testing (UAT) is based on a subset of the test cases used in the functional testing but with the test cases executed by FairPoint users rather than the Capgemini testing team. The test cases planned for UAT must be successfully executed in functional testing before they can be applied to UAT. There are two forms of UAT: "silo" UAT, which tests individual applications, and integrated UAT, which tests linkages between applications. FairPoint has completed silo UAT, with execution of 98% of the test cases and a 97% pass rate. Capgemini and FairPoint started integrated UAT testing during May, and will combine the remaining silo UAT into the integrated UAT test regime.

Given the incomplete status of system testing, FairPoint and Capgemini are initially using for integrated UAT only those test cases that have successfully passed system testing, and are adding new test cases to the UAT as they successfully pass the system testing. UAT has the same acceptance criteria as system testing:

- 100 percent of tests are executed.
- There are no open severity 1 defects and no open severity 2 defects without acceptable business workarounds.
- The cumulative effect of defects (for all severity levels) across all testing (system, UAT, CLEC) resulting in necessary workarounds must be quantified and not exceed 50 incremental headcount.
- All open defects have been assigned target fix dates.
- Required workarounds are subsequently tracked under method and procedure development.

The tables below show the status of UAT for the 140 test cases currently scheduled. Capgemini and FairPoint anticipate adding more test cases to this list.

User Acceptance Test Execution Status
(As of June 3)

Functional Domain	Planned Test Cases	Executed Test Cases	Passed Test Cases	Failed Test Cases
Billing and Collection	7	6 (86%)	5	1
Pre-Ordering and Standalone Ordering	23	9 (39%)	5	4
Ordering and Service Fulfillment (Provisioning)	66	27 (41%)	5	19
Plant and Construction	4	4 (100%)	3	1
Service Assurance (Maintenance and Repair)	40	40 (100%)	40	0
Total	140	86 (61%)	58	25

As with the system tests, some of the executed UAT test cases have "passed with exception," which explains the difference between the number of executed test cases and the sum of the passed and failed test cases. The user acceptance tests have uncovered defects as follows:

Defect Status from User Acceptance Testing
(As of June 3)

Open Severity 1 Defects	Open Severity 2 Defects	Total Open Defects (All Severity Levels)
2	36	146

Liberty spent three days in Manchester, NH observing the UAT, and found the testing to be well organized and effective. The FairPoint testers, most of whom were former Verizon employees were very knowledgeable, asked very pertinent questions, and provided excellent feedback to the Capgemini team, who were very receptive to the input. The testers have generally indicated that they are pleased with the new systems and have seen a number of advantages of these systems over the Verizon systems they currently use. During the course of the testing, they are uncovering some deficiencies in the original system requirements. Many of these deficiencies represent systems improvements that are not critical to the operation of the business and therefore appropriate for implementation after cutover. However, some design defects have been uncovered that are critical to the business operations and need to be addressed through system modifications that must be completed and tested before the cutover readiness date. Liberty has discussed this issue with FairPoint, and we understand that FairPoint will be reviewing these systems requirements to identify those that must be addressed before cutover. These deficiencies are not classified as defects by Capgemini because the systems are operating as designed according to the system requirements supplied by FairPoint. FairPoint will need to issue change requests to Capgemini to assure that critical design issues identified during UAT are resolved prior to cutover.

On the whole UAT is proceeding well, but the total number of test cases to be run is still incompletely defined and is likely to be much larger than the 140 noted in the execution table above. Furthermore, the current UAT schedule extends into early July before it is complete, which would make it very difficult for FairPoint to meet the readiness criteria for UAT by early July.

c. <u>CLEC Testing</u>.

CLEC testing is designed to have three phases: Phase 1, internal Capgemini testing; Phase 2, limited external testing with a single volunteer external participant, NeuStar; and Phase 3, testing open to all CLECs desiring to participate. Phase 2 is proceeding in two parts: Phase 2A with FairPoint employees testing the webGUI functionality

and Phase 2B with NeuStar testing the electronic bonding functionality for pre-order and order test scenarios. The latest plans are for Phase 3 testing to begin on June 9 with volunteer CLECs testing the webGUI functionality. NeuStar will continue to test the electronic bonding functionality, but Liberty understands that other carriers and vendors interested in using the electronic bonding functionality have elected to delay their testing and certification process given the anticipated implementation of the updated industry standard ASOG and LSOG business rules (ASOG 37 and LSOG 9.10) later this year. FairPoint has scheduled testing with these new business rules with both the WebGUI (Phase 3B) and electronic bonding (Phase 3C) interface to begin in July.

CLEC testing has the same acceptance criteria as system testing and UAT:
- 100 percent of tests are executed.
- There are no open severity 1 defects and no open severity 2 defects without acceptable business workarounds.
- The cumulative effect of defects (for all severity levels) across all testing (system, UAT, CLEC) resulting in necessary workarounds must be quantified and not exceed 50 incremental headcount.
- All open defects have been assigned target fix dates.
- Required workarounds are subsequently tracked under method and procedure development.

The tables below show the status of CLEC testing:

Status of CLEC Testing
(As of June 3)

	Planned Test Cases	Executed Test Cases	Passed Test Cases
Phase 1 Pre-Ordering	21	21 (100%)	15
Phase 1 Ordering	41	41 (100%)	29
Phase 1 Trouble Administration	23	23 (100%)	23
Phase 2A Pre-Ordering	21	19 (90%)	19
Phase 2A Ordering	41	29 (71%)	14
Phase 2A Trouble Administration	23	23 (100%)	23
Phase 2B Pre-Ordering	19	19 (100%)	7
Phase 2B Ordering	39	34 (87%)	14

Defect Status from CLEC Testing
(As of June 3)

Open Severity 1 Defects	Open Severity 2 Defects	Total Open Defects (All Severity Levels)
2	19	26

As can be seen, the trouble administration testing is proceeding smoothly. However, the testing has encountered defects preventing the successful execution of several pre-ordering and ordering test cases in Phase 2. Liberty understands that FairPoint has elected to proceed with Phase 3 testing beginning on June 9 with volunteer CLECs submitting test cases. However, FairPoint will restrict the testing to those test cases that have been successfully executed in Phase 2. Nevertheless, the existence of these defects are likely to extend the schedule for CLEC testing, which will affect FairPoint's ability to demonstrate cutover readiness by early July.

d. Performance Testing.

As with UAT, there are two forms of performance testing: (a) Application Performance Testing (APT), which tests the performance under load conditions of individual system applications, and (b) Integrated Performance Testing (IPT), which tests the performance of linked applications. APT is complete and IPT is underway.

Performance testing has the following acceptance criteria:
  • 100 percent of tests are executed.
  • There are no open severity 1 defects and no open severity 2 defects without acceptable business workarounds.
  • All open defects have been assigned target fix dates.

The following table summarizes the status:

Status of Performance Testing
(As of June 3)

Planned APT Test Cases	Executed APT Test Cases	Planned IPT Test Cases	Executed IPT Test Cases	Open Severity 1 Defects	Open Severity 2 Defects
28	28 (100%)	34	0 (0%)	0	4

The performance testing appears to be proceeding smoothly. However, the IPT tests have yet to be executed, and any issues associated with their execution could negatively affect FairPoint's ability to demonstrate cutover readiness by early July.

2. Data Conversion.

Liberty indicated in its draft assessment report that data conversion testing involves the testing of automated procedures for converting the data extracts from Verizon's source systems into the new FairPoint systems. The Verizon data extract that is being used for this testing was received by FairPoint on February 29. Capgemini applies these tests to various mock-ups of the data extracts, the last two of which are labeled "Mock 7" and "Mock 8." Mock 8, which is not scheduled to be available until June 20, is intended to contain the full relevant data from the Verizon data extracts.

Capgemini and FairPoint have introduced an intermediate stage of "Mock 7.5" to assist in the testing of those systems that require a fuller data set. There currently exist more than 200 data conversion test cases, but Capgemini anticipates adding more.

Data conversion has the following acceptance criteria, as noted in Liberty's draft assessment of FairPoint's cutover readiness plan:

- 100 percent of tests are executed.
- There are no open severity 1 or severity 2 defects without acceptable automated or manual data correction tasks defined.
- Required manual data correction tasks are subsequently tracked under method and procedure development.
- Target systems capacity not to exceed 70 percent as measured after loading converted data.

The following table shows the status of data conversion testing:

Defect Status from Data Conversion Testing
(As of June 3)

Open Severity 1 Defects	Open Severity 2 Defects
4	16

Data conversion testing is proceeding well. However, it does not appear to be proceeding fast enough to allow FairPoint to demonstrate cutover readiness by early July. In particular, the June 20 target date for Mock 8 completion allows very little time to use the complete Verizon data set that this mock-up represents in operation support system testing. One additional open item needs to be resolved prior to a determination of cutover readiness in addition to the completion data conversion testing: FairPoint and Verizon must agree on and Liberty must review the set of cross-comparisons ("row counts") that will be made between the source Verizon systems and the FairPoint landing database during the data conversion at cutover. It is not clear when this issue will be resolved.

3. Business Processes

The cutover readiness acceptance criterion for business processes is as follows:

- 100 percent of key policies, processes, scripts, and methods and procedures are documented, reviewed, and approved by FairPoint senior management or their designees.

At this point, FairPoint has not yet provided for Liberty's review a full inventory of the key business processes, policies, and methods and procedures, and Liberty has only seen and reviewed incomplete drafts of a subset of FairPoint business processes.

It has become too close to the planned cutover readiness date for FairPoint to still be identifying the key business processes, because it appears very unlikely that they will be able to do so and have the business processes fully documented, reviewed, and approved by early July.

4. Staffing.
   The cutover readiness acceptance criteria for staffing are as follows:
   - Identify key positions that must be in place by the notice of readiness.
   - Validate that service quality levels are being met and that staffing levels are not causing them to be missed.
   - Validate that the staffing plans account for manual processes that might need to be in place at the time of cutover.

   On June 6, FairPoint provided a staffing analysis and plan, including a designation of key positions to fill by cutover. Given the timing, Liberty was not able to perform any analysis of this new staffing information prior to the issuance of this monthly report. Liberty will analyze this new information and discuss it with FairPoint to assess whether it sufficiently addresses the staffing needs for cutover. As Liberty has expressed in past monthly reports, the number of open positions that remain in several functional areas is a significant concern because of the potential impact on service quality and the potential need for any manual processes at cutover. With the staffing plan only now available, it appears unlikely to Liberty that FairPoint will be able to meet the staffing cutover readiness criteria by early July.

5. Training.

   The cutover readiness acceptance criteria for staff training are as follows:
   - 100 percent of train-the-trainer courses executed and approved.
   - Final version of training documentation delivered, reviewed and approved.
   - Planned training courses are completed with 90 percent of students demonstrating proficiency.
   - The remaining training courses have time allotted to absorb additional training if needed.

   None of the currently scheduled courses for the systems to be available at cutover have yet been administered. This is not surprising, because development of the final training materials requires stable systems, and this cannot be assured until the operational support system testing is sufficiently complete. In addition, as Liberty observed in its draft assessment of the cutover readiness plan, we are still awaiting an updated training schedule that will provide for a sufficient number of training courses to have been completed before the planned cutover date so that we can make an assessment of the success of the training. Liberty understands that it has been difficult for FairPoint to complete its training materials and schedule, because these are

dependent on the completion of systems testing and defect resolution, but this means that meeting the training cutover readiness criteria by early July is highly unlikely.

Evaluation of Status

FairPoint's current plan is to provide an irrevocable notice of readiness in July for a cutover at the end of September. To meet this date and to provide sufficient time for the regulators in the three states to conduct a formal review process, Liberty must provide its assessment of FairPoint's cutover readiness by July 13. FairPoint has committed to Liberty that it will provide evidence of its cutover readiness by July 7 to allow Liberty time to make our readiness assessment by July 13. As noted above, FairPoint is still very far from having met its cutover acceptance criteria, and a few aspects of a complete cutover readiness plan are still missing. Of particular note are the following:

a. Although progress on operational support system testing is good and the testing has been effective, it is not realistic to expect that, given the remaining time available, all the remaining tests will be executed, the classification of uncovered defects will be reviewed by FairPoint and Liberty, the defects will be sufficiently resolved, and retests will be completed in order for FairPoint to demonstrate readiness by July 7. In addition, it is not clear that there is enough time for a thorough review of the severity classification of all the open defects and a determination of the headcount necessary for any manual workarounds. Also, the key design requirements deficiencies that are uncovered during UAT need to be addressed through software modifications initiated by FairPoint through its change request process with Capgemini. These software modifications will need to be completed and tested before FairPoint can be considered ready for cutover, and it is unlikely that this can occur by July 7. Furthermore, there are some important testing scenarios that remain to be defined, including those for E911.

b. Data conversion testing is not complete, and Mock 8, which will contain the first instance of the full Verizon data set for testing purposes, is not scheduled to be available until late in June. In addition, Verizon and FairPoint have not agreed on the set of row checks to complete at cutover to assure the complete landing of the Verizon data by FairPoint for conversion into the FairPoint systems.

c. FairPoint has not yet identified its key business processes, policies, and methods and procedures, and still must document these and have them approved before the business processes can meet the criteria of business readiness.

d. FairPoint has just identified its key staff positions and staffing plan, and Liberty has not been able to review and assess this new information. Nevertheless, given the large number of open positions, it is doubtful that there is sufficient time for FairPoint to have an adequate staffing before a late September cutover date.

e. Training on the new operational support systems is dependent on sufficient completion of testing to assure stable systems. As a result, FairPoint has not yet developed the final training materials or completed any of the planned training for the new systems.

Based on this information, Liberty believes that the probability FairPoint can meet its cutover readiness criteria by July 7 is extremely low and much too low to use this date as a planning target to demonstrate readiness. Indeed, FairPoint is unlikely to meet these criteria even by the end of July, making a September cutover unrealistic. The consequence of continuing to adhere to such an unrealistic cutover schedule is that FairPoint and Capgemini will be tempted to take inadvisable actions that will require rework and either create unnecessary problems at cutover or delay cutover even further. As examples of such possible actions, Liberty notes:

- Proceeding with testing when there are known defects that will prevent the success of the tests and increase the need for retesting. Liberty recognizes the advantage of running a few tests despite the existence of known mild defects, because the results of these tests can potentially uncover other defects that need to be resolved. However, such testing should be limited in scope to avoid rework.
- Underestimating the severity of defects in order to meet the acceptance criteria.
- Frequent and last minute rescheduling of testing with outside parties, such as the CLECs and system partners (e.g., CDG, which is FairPoint's carrier access billing vendor, and E911 database managers), causing poor coordination with or hardship for these parties.
- Spending too much time on the development of plans simply to meet a date rather than focusing on the development and execution of realistic plans.
- Continually redesigning training materials by preparing these materials before the system testing has proceeded far enough to produce stable systems.
- Overworking the employees, increasing the probability of errors and employee dissatisfaction.

In general, Liberty believes that the cutover preparation is proceeding well and with more time FairPoint should be able to demonstrate cutover readiness. The Transition Services Agreement with Verizon provides for November as the next available cutover date beyond the current planned date of September. A November date would require FairPoint to demonstrate cutover readiness by early September. At this point, Liberty does not anticipate any substantial roadblocks to FairPoint's meeting that date.