

**FairPoint Cutover Monitoring
Status Report
The Liberty Consulting Group
August 8, 2008**

Overview of Monitoring Activities

Since our last monitoring report on July 11, in addition to the 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), the Liberty Consulting Group (“Liberty”) observed the FairPoint Wholesale User Forum and Wholesale Cutover Planning Collaborative web-based meetings held on July 30 and attended a meeting in Augusta, ME on August 5 to discuss the Maine E911 project plan and status. In addition, from July 22 to July 24, Liberty observed the live execution of system test cases at the Capgemini offices in Atlanta, GA.

Overview of Status

1. Operational Support System Testing.

To assess the current status of compliance with cutover readiness criteria for operational support systems, Liberty is continuing to track four components of operational support system testing: functional testing, user acceptance testing, CLEC testing, and performance testing.

a. Functional Testing.

The principal focus of functional testing is on the system test cases, which involve tests of linked systems including test cases for end-to-end system processes. Liberty has also been monitoring the status of the lower-level product and integration test cases, and these phases of the functional testing have now been successfully completed. 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 table shows the status for system test cases as of August 5. This status shows a small change in the number of test cases since Liberty's last report in early July resulting from refinements to and elimination of redundancies in the test cases since that time. As such changes occur in the suite of test cases, Capgemini continues to provide Liberty with explanations for the changes, and Liberty believes the changes that Capgemini made are reasonable. There are also some recent additions to the test cases that are not reflected in these numbers, including additional test cases for E911 and for complex products and test cases for regulatory performance reporting.

***System Test Execution Status
(As of August 5)***

Functional Domain	Planned Test Cases	Executed Test Cases	Passed Test Cases	Failed Test Cases
Billing and Collection	101	101 (100%)	101	0
Retail Ordering and Service Fulfillment (less complex)	304	304 (100%)	286	8
Retail Ordering and Service Fulfillment (more complex)	30	30 (100%)	30	0
Wholesale Ordering and Service Fulfillment	534	534 (100%)	455	54
Plant and Construction	62	62 (100%)	62	0
Service Assurance (Maintenance and Repair)	112	112 (100%)	112	0
Support Systems (Finance, Human Resources, Supply Chain Management)	14	14 (100%)	14	0
Total	1157	1157 (100%)	1060	62

As Liberty has noted in the past, some test cases are in neither a "passed" nor a "failed" status. Capgemini has identified these test cases as "passed with exception;" that is, the testers identified defects in the execution but were able to complete the test cases, sometimes through bypassing test steps. Once the defects are fixed, these test cases need to be rerun until they are successfully passed.

The system tests have uncovered defects as follows:

***Defect Status from System Testing
(As of August 5)***

Open Severity 1 Defects	Open Severity 2 Defects	Total Open Defects (All Severity Levels)	Open Defects without Assigned Fix Dates
0	9	303	29

Although system testing has not yet satisfied all the cutover readiness acceptance criteria, progress toward meeting these criteria is good. The overall pass rate was 92 percent as of August 5. There has also been significant progress in the success of ordering and provisioning test cases. All the test cases for complex retail products and 85 percent of those for wholesale products had passed by August 5. A step that Capgemini and FairPoint still need to take before satisfying the cutover readiness acceptance criteria for system testing as well as all the other software testing is the identification of acceptable manual workarounds to address existing defects and assurance that the total of these workarounds do not exceed the incremental headcount constraint.

Liberty selected a representative sample of test cases and observed their live execution in Atlanta from July 22 to 24. Because the selected test cases are end-to-end test cases, the execution of many of them required multiple days from order entry to billing and general ledger entry. Liberty confirmed that Capemini's system testing has been generally robust. The testing includes checks of the appropriate resulting conditions in the systems affected by the transactions and involves in the testing the external vendors that are necessary to complete the transaction flow (e.g., CDG for wholesale billing and Intrado for E911 transactions). It also involves the use of physical equipment interactions in a laboratory environment, when appropriate, as in the tests of Network Operations Center (NOC) monitoring of network equipment failures. Most of the issues uncovered during Liberty's visit involved the need for FairPoint to review and modify some of the business policies and business rules that have been embedded in the software logic. In addition, Liberty noted the lack of any network activation steps as part of test cases involving provisioning and the lack of NOC functionality testing with actual network elements. Liberty would also like to see the usage portions of the bills tested with a more comprehensive set of usage types. FairPoint and Capgemini are working on approaches to address these concerns.

Liberty notes that some of the defects that Capgemini has uncovered in the system testing are intermittent in nature. When a test case provides all the expected results, Capgemini considers it to be passed. However, because intermittent failures are not reliably reproducible, some test cases that have been designated as "passed" might also be affected by intermittent defects that have caused other test cases to fail, and it is difficult to identify which test cases might be so affected. However, as Liberty has

agreed, the cutover acceptance criteria for system testing do not require a specific pass rate; a 95 percent passing rate is an objective to meet rather than a requirement. Instead, the cutover criteria involve the defects that remain at the time readiness is declared, whether these defects can be addressed with manual workarounds without affecting service, and whether such manual workarounds are limited in total workforce impact. Because intermittent defects can have a wider impact than the test cases in which they are uncovered, Capgemini and FairPoint must assure that the fixes for such defects be thoroughly retested, including regression testing using related test cases that may not have originally been affected by them. Liberty will monitor this situation carefully.

b. User Acceptance Testing.

The User Acceptance Testing (UAT) is based on a subset of the test cases used in the functional testing, but the test cases are executed by FairPoint users rather than by the Capgemini testing team. There are two forms of UAT: “silo” UAT, which tests individual applications, and integrated UAT, which tests linkages between applications. Silo UAT is complete, and integrated UAT is in progress.

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 table below shows the status of UAT as of August 5.

***User Acceptance Test Execution Status
(As of August 5)***

Functional Domain	Planned Test Cases	Executed Test Cases	Passed Test Cases	Failed Test Cases
Billing and Collection	18	18 (100%)	18	0
Retail Ordering and Service Fulfillment (less complex)	129	104 (81%)	48	44
Retail Ordering and Service Fulfillment (more complex)	9	9 (100%)	0	7

complex)				
Wholesale Ordering and Service Fulfillment	145	89 (61%)	39	49
Plant and Construction	60	60 (100%)	60	0
Service Assurance (Maintenance and Repair)	40	40 (100%)	40	0
Total	401	320 (80%)	205	100

As with the system testing, some of the executed UAT test cases have “passed with exception.” For UAT, another reason for the difference between the number of executed test cases and the sum of the passed and failed test cases is that some of the “executed” test cases were in progress at the time of the reported numbers and had not yet completed. Also as with the system testing, there has been a small change in the number of test cases since Liberty’s July 11 report, but the changes should have no impact on the robustness of the user acceptance testing.

The user acceptance tests have uncovered defects as follows:

***Defect Status from User Acceptance Testing
(As of August 5)***

Open Severity 1 Defects	Open Severity 2 Defects	Total Open Defects (All Severity Levels)	Open Defects without Assigned Fix Dates
0	2	132	19

The UAT results are still significantly below what will be required to meet the cutover acceptance criteria by early September. FairPoint and Capgemini will need to place a significant amount of emphasis on this area over the next month.

c. CLEC Testing.

CLEC testing has three phases: Phase 1, internal Capgemini testing; Phase 2, FairPoint employees testing the webGUI functionality (Phase 2A) and a single volunteer external participant, NeuStar, testing the electronic bonding functionality for pre-order and order test scenarios (Phase 2B); and Phase 3, testing open to all CLECs desiring to participate. Phase 3 testing began in the middle of June with NeuStar continuing to test the electronic bonding functionality and volunteer CLECs testing the webGUI functionality. Carriers and vendors other than NeuStar that are interested in using the electronic bonding functionality have elected to delay their testing and certification process given the pending implementation of the updated industry standard ASOG and LSOG business rules.

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.

Liberty noted in its July 11 report that a number of the CLEC tests had not been successfully passed. Recently, FairPoint has suspended CLEC testing, and Capgemini has been fixing defects that had been preventing successful completion of the tests and updated the data used in the testing. In addition, the CLECs have recently suggested some additional test scenarios be run. Capgemini has added some new scenarios to most of the original CLEC test cases to form a new set of test cases that FairPoint intends to provide to the CLECs for testing after internal testing of the new set is complete. FairPoint expects testing by CLECs to resume during the week of August 11. Capgemini also plans to add soon to the CLEC test case deck some more of the additional test scenarios the CLECs have suggested.

Along with the request for additional test cases, several of the CLECs have requested that they be provided the functionality of launching mechanized line tests (MLT) and receiving MLT results through the FairPoint GUI, which they can now do through the Verizon GUI. Capgemini is now working to make this capability available. Liberty will be checking to make sure that this capability is available and tested prior to the notice of cutover readiness.

Given the revisions to the CLEC testing plan that are underway and the addition of such functionality as MLT testing, it is unclear how close FairPoint is to satisfying its CLEC testing cutover acceptance criteria.

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 has been successfully completed 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 tables summarize the performance testing status:

***Status of Performance Testing
(As of August 5)***

Planned IPT Test Cases	Executed IPT Test Cases	Passed Test Cases	Failed Test Cases
200	200 (100%)	97	103

***Defect Status from Performance Testing
(As of August 5)***

Open Severity 1 Defects	Open Severity 2 Defects	Total Open Defects (All Severity Levels)	Open Defects without Assigned Fix Dates
0	2	15	0

As with system and user acceptance testing, there has been a minor change in the number of performance testing test cases since early July because of refinement in the test case suite. The overall pass rate is only 49 percent, indicating very little progress in the success of the performance testing since early July. Fixing the defects that are leading to this poor success rate will need to be an area of significant attention between now and early September in order for FairPoint to demonstrate cutover readiness by that time.

2. Data Conversion.

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 has completed the creation of Mock 9, the latest version of the conversion of this data extract, and will soon be incorporating this version into its testing.

Data conversion has the following acceptance criteria:

- 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 tables show the status of data conversion testing:

***Status of Data Conversion Testing
(As of August 5)***

Planned Test Cases	Executed Test Cases	Failed Test Cases	Open Severity 1 Defects	Open Severity 2 Defects
302	302 (100%)	5	1	8

Liberty has reviewed the list of data conversion test cases and has made some suggestions to Capgemini for additions to the list. Capgemini has agreed to make these additions to the test cases. In general, data conversion testing is in good shape relative to the cutover readiness criteria, although not much progress has been made over the last month in resolving the open defects.

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.

FairPoint has made substantial progress in identifying and documenting its key business processes. FairPoint formed several cross-departmental teams to inventory the processes and has now identified 673 key policies, processes, scripts, and methods and procedures. In addition, as of August 6, FairPoint had completed initial documentation of all of these and 80 percent had been approved. Liberty has reviewed the list of key business processes identified by FairPoint and has begun providing input to FairPoint on its assessment of the completeness of this list. In addition, Liberty is in the process of reviewing a sample of the business process documentation.

The FairPoint cross-departmental teams have also been designing business simulation testing based on the processes identified. This testing will be used to verify both the manual and automated process steps and assure that the logic in the newly developed systems is consistent with FairPoint's business processes and policies. This testing is now underway for some business processes and should begin for all processes by mid-August. Liberty plans to observe the business simulation testing in late August.

FairPoint has also made substantial progress in completing and documenting the test plan and cutover process for the E911 system in Maine, where FairPoint has replaced Verizon as the system administrator. The testing is now underway and appears to be proceeding smoothly, although much needs to be completed between now and early September for FairPoint to demonstrate cutover readiness.

4. Staffing.

The cutover readiness acceptance criterion for staffing is as follows:

- 100 percent of key positions are filled.

FairPoint has identified 230 key positions that remained to be filled as of June 1. Now that FairPoint has identified the key processes, an important step that remains is to verify that the key processes and the key positions are aligned.

As of July 31, FairPoint had filled 86 of the key positions. FairPoint plans to fill a number of the remaining positions through internal transfers of employees, some of whom already have experience in the job function, and 73 of such transfers are in various stages of progress. In addition, FairPoint is planning to have available a temporary staffing pool to address unforeseen problems that may happen during the cutover process and is in the process of identifying experienced people, including many retirees, who can be used for such temporary staffing during the cutover. As of the end of July, FairPoint's total northern New England headcount had increased by more than 500 over that at close.

FairPoint is making progress toward filling its key staffing positions, but it will need to make significant additional progress over the next month in order to demonstrate readiness for cutover by early September.

5. Training.

The cutover readiness acceptance criteria for staff training are as follows:

- 100 percent of train-the-trainer courses executed and the results 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.

FairPoint is making good progress in completing its training materials and plans to have these sufficiently complete to begin initial trialing of the materials in late August. The FairPoint training team has been keeping in close contact with the business process and UAT teams to assure that the training materials are consistent with the latest versions of the business processes and systems. Liberty plans to view a sample of the initial training material trials in late August. Liberty has discussed with the FairPoint training team how much this schedule depends on the successful completion of the software system testing, particularly UAT, prior to the completion of the training materials, and Liberty agrees with FairPoint that the training materials will be largely unaffected by the successful completion of this testing, unless there are major system defects that are revealed that would require significant software redesign.

Evaluation of Status

FairPoint's current plan is to provide an irrevocable notice of readiness in September for a cutover at the end of November. With this schedule, Liberty must provide its assessment of FairPoint's cutover readiness by September 15 in order to provide sufficient time for the regulators to conduct a formal review process in Vermont, and in Maine and New Hampshire if FairPoint and Liberty do not agree on the status of readiness. To meet this date, Liberty will need FairPoint to provide its evidence of cutover readiness by September 8.

FairPoint has continued to make progress toward achieving cutover readiness during the past month. In particular, FairPoint has now largely filled the significant gap in the status of business process development and documentation that Liberty noted in its July 11 report. Likewise, FairPoint has now provided a complete and comprehensive E911 testing and cutover plan. In addition, most of the missing test cases that Liberty has identified have now been created. As a result, Liberty is now in a position to finalize our review of the FairPoint Cutover Readiness Assessment Plan, and we will be issuing a final version of this review soon.

Functional software system testing and data conversion testing continue to appear to be on track. The major remaining gaps to demonstrate readiness by early September are in UAT, CLEC, and performance testing. FairPoint also needs to make substantial progress filling the open key staff positions and must successfully execute its E911 testing plan. In addition, if any software defects continue to exist by the beginning of September, FairPoint must determine whether there are acceptable manual workarounds, determine the incremental headcount required for these workarounds, and demonstrate that this number does not exceed a total incremental headcount constraint of 50.

Liberty concludes that FairPoint has the basic structure in place to be able to demonstrate cutover readiness by early September. It will be a substantial challenge for FairPoint and Capgemini to meet all of the cutover criteria by that time, given the gaps that remain. However, they can do so if they can continue to make steady progress and quickly fill the remaining gaps and fix the defects that have been and may be revealed during the next month or demonstrate that the defects can be addressed by manual workarounds not exceeding the incremental headcount constraint.