



OSS Interface Change Management Process

Frontier Wholesale
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Introduction

This document serves as a reference for the processes by which Telecommunications Companies (TCs) ordering local communications services and Frontier communicate about changes to interfaces offered by Frontier for access to Operating Support Systems (OSS) supporting its provision of resold telecommunications services, unbundled network elements (UNE), and facilities, as applicable. These OSS interfaces include pre-ordering, ordering/provisioning, and trouble reporting and maintenance. The Change Management Process described in this document describes how Frontier and TCs will work together to implement changes to OSS interfaces, associated business rules and applicable business processes and applies throughout the region served by Frontier.

Change Request Process

Frontier tracks changes to the OSS interfaces as Change Requests and assigns a tracking number to each Change Request. The Change Management process begins with the identification of the Change Request and encompasses requirement definition, design, development, notification, testing, implementation, and decommissioning of the Change Request.

Change Classifications

Type 1 Maintenance Change

A Type 1 change corrects problems in production versions of an OSS interface. Either Frontier or the TC may initiate the Change Request. Typically, this type of change reflects instances where a technical implementation is faulty or inaccurate, such as to cause incorrect or improperly formatted data. Instances where Frontier or TCs misinterpret interface specifications and/or business rules must be addressed on a case-by-case basis. All parties will take all reasonable steps to ensure that any disagreements regarding the interpretation of a new or modified business process are identified and resolved during change management review of the Change Request. Type 1 changes will be processed on an expedited basis.

Additionally, once a Type 1 change is identified, the Change Management Team must determine the nature and scope of the problem. Type 1 changes should be categorized in the following manner:

Severity 1: Interface Unusable - Interface discrepancy results in totally unusable interface. TC Orders/Pre-Orders/Maintenance Requests cannot be submitted or will not be accepted by Frontier. Manual work-arounds are not feasible. Change is considered essential to continued operation. Frontier and TCs should work to resolve the discrepancy as quickly as possible.

Severity 2: Interface Affecting - Orders/Pre-Orders/Maintenance Requests require work-around on the part of Frontier or TC(s). Change is considered significant to operations. Frontier and TCs should work to resolve the discrepancy in a timely manner.

Severity 3: Process Impacting – Orders/Pre-Orders/Maintenance Requests can be submitted and will be accepted through normal process/interfaces. Clarification or correction is considered critical to ongoing operations. Frontier should work to provide appropriate documentation on an expedited basis.



Type 2 Regulatory Change

Changes affecting the interfaces between the TC's and Frontier's operational support systems required in order to comply with state or federal law, orders or specific directives by regulatory authorities (such as the Federal Communications Commission (FCC)), state or federal court orders, or required to meet standards, metrics, or other obligations imposed by, or under agreement with, the FCC or state commissions. Either Frontier or, as applicable, the TC may initiate the Change Request.

Type 3 Industry Guidelines Change

Changes affecting interfaces between the TC's and Frontier's operational support systems requested to bring these interfaces in line with agreed upon telecommunications industry guidelines are Type 3 changes. Either Frontier or the TC may initiate the Change Request. These are industry guidelines defined by trade groups, such as the Alliance for Telecommunications Industry Solutions (ATIS). Guidelines of particular relevance are those for OSS interfaces and local services ordering as defined by the Ordering and Billing Forum (OBF), EDI standards defined by the Telecommunications Industry Forum (TCIF), and trouble reporting interfaces defined by the Electronic Commerce Interexchange Committee (ECIC).

Type 4 Frontier Originated Change

A Type 4 change is a change affecting the interfaces between the TC's and Frontier's operational support systems initiated by Frontier other than a Type 1, 2 or 3 change. These changes might reflect a business process improvement which Frontier is seeking to implement within its own internal operational support system and that implies a change in the way the TC will interact with Frontier.

Type 5 TC Originated Change

A Type 5 change is a change affecting interfaces between the TC's and Frontier's operational support systems initiated by a TC other than a Type 1, 2 or 3 change. These changes might reflect a business process improvement which the TC is seeking to implement within its own internal operational support system and that implies a change in the way the TC wishes to interact with Frontier. Type 5 changes are changes intended to primarily benefit the TCs. The [Change Request Form](#) should be completed to submit a Type 5 Change Request.



Industry Change Control Meeting

The Industry Change Control Meeting is a forum attended by the Frontier Change Control Manager, Frontier Support Group's subject matter experts (as needed), and TC Change Management representatives. The Industry Change Control Meeting's main objectives are to:

- Provide a forum for discussing Change Control issues
- Summarize prior month's activities
- Present outlook for future releases
- Introduce newly initiated Frontier and TC originated Change Requests.

Allow TCs to prioritize new Type 4 and Type 5 Change Requests by providing specific input as to the relative importance that TCs, as a group, assign to each such Change Request.

Provide status on existing Frontier and TC originated Change Requests.

Prioritization Process

TCs will use the process below to prioritize, as described above, Type 4 and Type 5 Change Requests. Change Requests may not be implemented in the priority order specified by TCs due to the complexity of the Change Request, the relationship between the implementation of one change and changes specified in other Change Requests, and other factors. Implementation decisions will remain within Frontier's discretion, consistent with applicable law and regulatory authority and resource constraints. Frontier will consider TC prioritization in exercising this discretion.

The initiating TC must participate at Change Control meetings to review new Change Request(s). New Change Request(s) will not be reviewed at Change Control meetings until the initiating TC participates. If the initiating TC is not represented at two consecutive meetings, the request will be cancelled and removed from the Not Rated list unless another TC champions the Change Request. As stated above, prioritization is intended to provide Frontier with a comprehensive view of how CLECs, as a group, rank the applicable Change Requests.



Voting

Each TC is allowed one vote and should have one representative responsible for providing a rating. Each participating TC can only assign a rating to a Change Request at the Change Control meeting. A rating will not be accepted outside of the Change Control Meeting (e.g., via e-mail, etc).

TCs may only provide a rating at the Change Control meeting where the new Change Request is introduced. TCs that were not present at that meeting may not submit ratings at subsequent meetings.

TCs can defer/pass on voting. A rating of defer or pass will not be averaged in the overall rating. If a rating is received subsequent to the meeting after a deferral is requested, the average rating will be adjusted accordingly.

TCs can submit a formal request to re-rate a Change Request to Frontier Change Control no later than 2 weeks prior to the next Change Control Meeting. The request must provide a reason for requesting the re-rate. Re-rate requests will not be accepted from TCs that did not participate in the initial rating. Once a re-rate is requested, all TCs participating at the subsequent Change Control meeting can submit a rating.

TCs that fail to attend a Change Control meeting when a re-rate occurs will not have an opportunity to re-rate the Change Request. The initial rating for that TC will be carried forward.

TCs can request an addendum or modification to a new Change Request, if agreed to by the originating TC. The originating TC or TC requesting the addendum must re-submit the Change Request, if an addendum or modification is agreed upon. TCs will be allowed to rate the new Change Request prior to the addendum or modification, providing the addendum or modification is clearly conveyed at the Change Control meeting. TCs may co-sponsor a Change Request.

Each participating TC ranks each Change Request by providing a rank from 1 (low) to 5 (high) based on the following criteria:

Interface Usability

To what extent will the Change Request improve the usability of the interface?

Benefit to TCs

How will TCs benefit from the implementation of the Change Request?

Productivity Impact

To what extent will the Change Request streamline TC processes and increase TC productivity?

Cost/Expense to Develop and Operate

What are TC's and Frontier's cost to develop and operate the Change Request relative to other Change Requests? What will be the developmental time for the request?

Note: High costs may jeopardize schedule of lower cost, high impact Change Requests

LSOG or other Industry Guideline Conformity

Does the Change Request aim to satisfy LSOG or other industry guidelines that are not being satisfied?

Average rating calculations are based on the rating provided by all TCs that participate in the rating process.



Ranking Ballot

Each TC is allowed to submit one ranking ballot. Ranking ballot will include all open Type 5 change requests. Ballots should be completed with ranking numbering beginning with 1 for highest priority. Ballots will be sent to the industry with a specified time frame for completed ballots to be returned.

Ranking Ballots will be distributed at least once per calendar year.

Notification Timelines

Notification and confirmation of the scheduled implementation of Change Requests will be accompanied by the appropriate documentation (business rules, technical specifications).

Type 1

Notification and confirmation timelines for Type 1 are determined on an individual case basis based on the severity of the problem.

Type 2

Timelines for Type 2 Change Requests are, in general, determined based on applicable law/regulatory rules. If the notification timeline is not specified by the regulatory action and business rules are impacted, then unless the implementation timeline specified or required by the applicable regulatory action is inconsistent with use of the same notification intervals employed for Type 4 and Type 5 Change Requests (e.g, the change must be implemented by law in 30 days from the date of an order), or Frontier and the TCs reach consensus on different intervals, Frontier will follow, for Type 2 Change Requests, the same notification intervals for Type 4 and Type 5 Change Requests. Subject to the same conditions listed above, Frontier will provide 45 days notification prior to implementation of Type 2 Change Requests that do not impact business rules.

Type 3

Type 3 timelines are based upon mutual agreement in conjunction with the rollout of national guidelines subject to any overriding regulatory obligations. Where practical, Frontier will supply a level overview of how Frontier intends to implement major changes in the new industry guideline 180 days in advance of implementation. Draft business rules may also be provided. Subject to regulatory requirements, implementation notification will be no less than the timeline used for Type 4 and Type 5 Change requests.

Type 4 and Type 5

Generally, notification of the scheduled implementation of Type 4 and Type 5 changes will follow the schedule below:

- 73 days prior to implementation draft business rules are published.
- 66 days prior to implementation draft technical specifications are published.
- TCs have 15 business days from publication of documents to provide comments.
- 45 days prior to implementation change confirmation occurs through the publication of final business rules, technical specifications and error message documentation.

For Type 4 and Type 5 Change Requests, in some instances, it will make sense to provide more notification, or less notification, based upon the severity and the impact of the change. For example, if the change has a benefit and has little material impact on the interface, Frontier will bring the Change Request to the TCs with for implementation with shortened notification timelines. An example of such a change is the introduction of new functionality that does not impact existing functionality. More notification would be provided in the case of a major backend system introduction that significantly impacts the OSS interface.

Application-to-Application Interface Testing

Frontier provides a separate CLEC Test Environment for the testing of application-to-application interfaces for pre-order and order. There are two types of testing: new release testing and new entrant testing. New release testing provides the opportunity to test the code associated with the release. New entrant testing allows TCs to test their entry into new products or geographic areas. It also allows TCs currently in production that need to perform regression testing, due to changes within their own applications, to notify the Frontier test coordinator to create and implement a test plan in the CLEC Test Environment.

New Release & New Entrant Testing in the CLEC Test Environment

This section provides information regarding the CLEC (TC) Test Environment (CTE) and the procedures for new release and new entrant TC testing.

The CLEC Test Environment is a separate systems environment that contains the application-to-application interface and gateway applications for preordering and ordering. This environment is used for TC testing – both new release testing and new entrant testing. TCs are responsible for establishing and maintaining connectivity into the CLEC test Environment. Provided a TC uses the same connectivity option as it uses in production, the TC should, in general, experience response times similar to production. However, this environment is not intended for volume testing. The CLEC Test Environment contains the appropriate applications for pre-ordering and Local Service Request (LSR) ordering up to and including the service order processor. The Frontier-East production applications required will be provided for the Frontier-East CLEC Test Environment, and the Frontier-West production applications required will be provided for the Frontier-West CLEC Test Environment.

The CLEC Test Environment allows for comprehensive testing of Pre-Ordering and LSR Ordering functionality. All pre-order functionality is available in the CLEC Test Environment excluding the installation status inquiry, XDSL loop qualification inquiry, and loop qualification inquiry – extended transactions. Arrangements will be made with interested TCs to test these functions in production. Ordering functionality is tested from receipt of an LSR via EDI through



the creation of a service order and the return to the TC of confirmations and completions (as negotiated with Frontier). Service orders associated with LSRs that flow through will be entered into the service order processor. Frontier will manually enter Service orders associated with LSRs that do not flow through into the service order processor. Once the service orders have been entered into the service order processor, confirmation notices will be generated automatically. Completion notices are generated through a process that simulates completion processing in production. Frontier will work with each TC to identify specific test scenarios in the TC's test plan to test completion processing. Data on completion notices will be sample data and may not be specific to each test account.

In the CLEC Test Environment, service orders will not impact the end state of accounts. Therefore, a CSR inquiry will not reflect any changes to the end state of accounts as a result of a service order. Also, an LSR cannot be issued to migrate a retail account to a TC and then a subsequent LSR issued to do post migration changes. Post migration changes may be done against accounts that were previously set up for each TC.

Any special procedures required due to geographical or system differences will be reviewed with the participating TC prior to the implementation of their testing phase.

The CLEC Test Environment will contain the data associated with a wide range of accounts. TCs participating in new release or new entrant testing will be solicited for the accounts they need to have in the environment. TC specific accounts will be generated for each TC along with a group of retail accounts to be used by all TCs. The environment will also contain the data necessary to support the Quality Baseline Validation Test Decks.

Not all addresses and telephone numbers from production will be loaded into the CLEC Test Environment. Addresses and telephone numbers from representative NPA's will be in the environment. These addresses and telephone numbers can be used for pre-order and order transactions.

New Release Testing

Definitions

New release testing is the process TCs use to test an upcoming Frontier systems release that impacts the interface and business rules between TCs and Frontier. This testing will take place after Frontier has completed its internal testing of the release.

New release testing is intended for those TCs which are currently in production with Frontier, submitting and receiving pre-order or order transactions through an application-to-application interface (i.e., EDI). This process does not apply to the Web GUI interface.

Quality Baseline Validation Test Decks and Test Accounts

Frontier has created and will maintain standard Quality Baseline Validation Test Decks of pre-order and order transactions that will be used to test a new release. The Quality Baseline Validation Test Deck is also referred to as the Regression Test Deck. Frontier will distribute the updated regression test decks for the upcoming new release through Frontier Change Control two weeks prior to the start of TC testing. The regression test decks are posted to the Frontier Wholesale web site shortly after their distribution through Frontier Change Control.

Frontier will run the regression test decks before the TC test period begins and at the conclusion of TC new release testing.

Frontier may also develop specific progression test scenarios for the major changes in functionality of the new release. If additional progression test scenarios are developed, they will be distributed through Frontier Change Control two weeks prior to the start of TC testing. The



progression test scenarios will be posted to the Frontier Wholesale web site shortly after their distribution through Frontier Change Control.

The progression test scenarios will also be run in the CLEC Test Environment at the same time as the Quality Baseline Validation Test Decks are run in the CLEC Test Environment. Results will be reported with those of the Quality Baseline Validation Test Decks. After new release testing is concluded, some of the release specific progression scenarios may be moved into the Quality Baseline Validation Test Decks.

For Pre-Order transactions, the test decks consist of inbound requests and corresponding outbound responses. For Order transactions, the test decks consist of the LSR, the inbound EDI request, and the outbound EDI response (e.g., confirmation).

These test deck scenarios and test deck accounts are available for TCs to use during the testing period. However, TCs are not limited to these transactions and accounts and may request additional support from Frontier to build specific test accounts in the CLEC Test Environment. Such requests must be received as part of a test plan two weeks prior to the beginning of TC testing.

TCs may also request that some of their accounts that currently reside in production be moved into the CLEC Test Environment to be available for testing. Generic TC accounts in the CLEC Test Environment may be duplicated using the identification of another TC.

Getting Ready for the New Release Testing

TCs are notified of the content of the release through the change management process. TCs should review the content of the release and determine if they want to participate in the test and what transactions they would like to submit as part of the test. Frontier will put out an industry notification requesting TCs to identify their intent to participate in the test based on the schedule at the end of this section. At that time, Frontier will publish any changes to the schedule.

TCs wishing to participate in the test should make arrangements with the CLEC Testing coordinator.

As identified on the schedule, TCs need to submit a test plan identifying the nature and volumes of transactions they intend to submit as part of the test and when the transactions will be submitted. The test coordinator will work with the TC in determining the appropriate testing scenarios, and to ensure that the test plan will meet the TC requirements to test the new release, and if additional accounts must be added to the CLEC Test Environment database based on their test plan.

New Release Testing Process

Four weeks prior to a TC impacting release, code for that release will be loaded into the CLEC Test Environment. This code will already have gone through Quality Assurance testing by Frontier. Frontier will run the test decks through the new release system code and publish the results of this test through Frontier Change Control. The published results will indicate if there were any differences from what was documented in the test decks previously distributed through Frontier Change Control.

TCs will begin new release testing on the Monday four weeks before release implementation and may submit test transactions normally between 8:00 a.m. and 5:00 p.m. Eastern Monday through Friday. Frontier may offer extended hours, or changes to the schedule, and any such changes will be communicated through the Change Management Process. The CLEC Test Environment will be unavailable for new release testing the Friday before release implementation into the CLEC Test Environment and into production. Orders that qualify for level 5 transactions will flow through to the service order processor. Acknowledgements, confirmations, and (where mutually agreed) completions will be provided. Order transactions



that do not flow through will be manually entered into the service order processor and the same responses provided.

During new release testing, the testing coordinator will be the TCs point of contact to identify and resolve problems and questions. The testing coordinator will involve other Frontier personnel as required. Frontier will maintain a log of issues during the new release test. Issues will be responded to by the next business day. The status of open issues will be published and reviewed with the TCs on status calls to be held by the TC Testing Director, or designate, every Tuesday and Friday.

On the last Monday of the TC new release testing period, a special status call will be held to identify any outstanding issues that must be fixed prior to release implementation.

Frontier will not make any changes to the CLEC Test Environment while TCs are testing the new release. Defects will be fixed each Wednesday evening during TC new release testing. Emergency fixes may be implemented at times other than Wednesday evening. The last Wednesday will be reserved for fixes that must be done prior to release implementation. Any of these additional fixes will be communicated through Change Management Process. This enables the TCs an opportunity to retest before the code is migrated to production.

The escalation procedure to be used, if necessary, to resolve issues during TC new release testing is at the end of this section.

Post New Release Testing

After completion of TC testing, the code will be migrated into production. The CLEC Test Environment will continue to contain this code until the code for the next release is moved into the CLEC Test Environment.

Frontier will execute the test decks in the CLEC Test Environment at the end of the new release testing period and verify that the results match the published test decks. After the code contained in the CLEC Test Environment has been migrated to production, Frontier will run the Quality Baseline Validation Test Decks in production without changing the end state of accounts; and Frontier will document the results within 5 days. Completions will not be a part of the results obtained from production.

After each release has been moved into production, Frontier will affirm that it has used software configuration management tools to ensure that the CLEC Test Environment code was successfully moved into production.

New Entrant Testing

Definitions

New entrant testing is the process TCs must go through prior to submitting live LSRs or pre-order transactions to Frontier in the production environment through an application-to-application interface. This testing is important to ascertain that the trading partner OSS interfaces and interactions work to the satisfaction of both the TC and Frontier - and that no adverse operational impacts are likely to occur to other operating TCs. This process does not apply to the Web GUI interface.

New entrant testing is intended for those TCs that are not currently in production or that want to test new ordering or pre-ordering transactions for which they have not been through testing.

There are three phases to new entrant testing. The first, connectivity testing, ensures that the TC connectivity option is functioning properly. The second phase is the actual transmission of test



transactions and responses and is conducted in the CLEC Test Environment. The third phase involves allows the TC to begin friendly production testing.

The duration of new entrant testing will vary based on the complexity of services being tested and the type of connectivity requested by the TC. A TCs expertise with establishing connectivity and processing EDI transactions will greatly impact the duration of new entrant testing. Frontier will work with the TC to complete new entrant testing as expeditiously as possible.

Development of a Test Plan

1. The TCs will advise Frontier when they are ready to use application-to- application interfaces to conduct business with Frontier. There will be a meeting or conference call between the TC and Frontier to discuss connectivity. A testing coordinator is assigned to the TC at this time.
2. TC obtains and reviews the most current EDI and Business Rules documentation from the Frontier web site and will contact their test coordinator when ready to test.
3. The TC and Frontier test coordinator will jointly developed the TCs test plan. For ordering, the scenarios will be determined by the business the TC will be in (Resale, UNE, Platform), the markets they will serve (residence/business), and the types of transactions (Migrate as is, Migrate as Specified, New, Changes, etc). The scenarios should include supplemental transactions. Pre- Order transactions are based on which transactions the TC will be using in production (CSR retrieval, TN selection, etc). Frontier will assist in the determination of which scenarios are needed based on previous testing experience. TCs will be required to test at least one scenario of each type of transaction they will be using in production. For ordering, TCs will be required to test each of the three types of supplementary LSRs (change date due, cancel, other). Frontier will support up to 5 test cases of the same transaction.

The scenarios will be grouped into logical phases based on type of request (Resale, UNE, Platform), complexity of request (single line, multiline), or other logical grouping. The TC and Frontier will develop a schedule including intermediate milestones for the test. This schedule will be reviewed and updated on a regular, periodic basis.

Frontier will provide a spreadsheet for the TC to enter a description of each scenario and the PON number used to transmit the scenario. See sample spreadsheet at end of this section.

Test Account Establishment

Frontier will review each scenario and determine what test account can be used for that scenario. The scenarios contained in the Quality Baseline Validation Test Decks used in new release testing are also available for TCs use in new entrant testing. The TC may elect to submit scenarios contained in the test decks and/or develop new scenarios to use during new entrant testing. If new test accounts are required, Frontier will build these accounts, as required, within two weeks. If test deck accounts are selected to use during new entrant testing, Frontier will update them to reflect the TC's AECN or RSID. Frontier will provide the TC with the necessary account information including BTN, SBN, etc. Test deck documentation is posted to the Frontier Wholesale web site.

New Entrant Testing Process

TCs may submit test transactions into the CLEC Test Environment from 8:00AM to 8:00 PM Eastern, Monday through Friday. Frontier will negotiate with any TC for any request for a different schedule through the Change Management Process. In addition, the one exception to this time will be during the four weeks of New Release testing, when availability will be 8:00AM



to 5:00PM, Eastern. Any exception to the process can be worked between TC and the test coordinator. Frontier personnel will be available to support the TC during normal business hours. The CLEC Test Environment will be unavailable for new entrant testing on the Friday before a new release is implemented in the CLEC Test Environment or in production. The TC and Frontier will use the spreadsheet at the end of this section to communicate when PONs will be delivered to Frontier and the status of each PON. The spreadsheet will be sent through e-mail. The TC will notify Frontier via the spreadsheet of the intent to transmit EDI transactions and the associated PON numbers. Frontier will provide a status of the PON via the spreadsheet through e-mail by the next business day. The status will indicate if the PON completed successfully or contained errors. Frontier will also provide telephone support for the test throughout the day via the Testing Coordinator. If necessary, the Testing Coordinator will arrange for conference calls between the TC and Technical Support staff. The Testing Coordinator will be the TCs point of contract for all troubles and issues identified during the test including the “friendly production” phase.

Frontier will track issues arising during the test. Each issue will be documented and logged into an issue tracking document. The status of each open issue will be reviewed on a regular, basis as established at the test planning meeting.

Entrance/exit criteria are established for each phase of testing. The basic criteria for exiting the connectivity test phase, is the ability of the TC and Frontier to successfully pass and receive information across the interface. The exit criteria for each phase of transaction testing will be the successful completion of the transaction in that phase including proper responses being returned to the TC by Frontier.

Friendly Production Testing (“Friendly Production”)

Upon successful completion of all test phases, the TC will begin to submit real production transactions that will be processed as other production transactions are processed. Frontier will provide the same level of support as provided in the test phase. during friendly production testing.

The LSRs sent during friendly production should be for end users such as TC employees or existing TC retail accounts. Frontier will carefully monitor these LSRs. Once Frontier and the TC agree that their transactions in production are working correctly, then the full testing process ends, and robust production can begin.

Sample New Release Testing Schedule

Monday 8 weeks prior to release implementation

- Frontier will request the TC’s to indicate their intent to participate in Release testing via Change Management Process.

Monday 6 weeks prior to release implementation

- TCs will provide an initial Release Test plan to their test coordinator

Monday 6 weeks prior to release implementation

- Frontier publishes test deck scenarios developed for the release.
- TCs provide test plan and account requirements to Frontier.

Friday 4 weeks prior to release implementation

- CLEC Test Environment unavailable.



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- Release migrated to CLEC Test Environment.
- Test decks run in CLEC Test Environment.

Weekend 4 weeks prior to release implementation

- Frontier publishes results of test decks run in the CLEC Test Environment.

Monday 4 weeks prior to release implementation

- TC testing begins.

Tuesday/Friday each of the 4 weeks before release implementation

- Status calls are held.

Wednesday each of the 4 weeks before release implementation

- Code fixes are implemented after 5:00PM as needed.

Monday 1 week prior to release implementation

- Special status call is held.

Thursday before release implementation

- TC testing concludes.

Weekend of release implementation

- Test decks run in CLEC Test Environment and results published.
- Release migrated to production.
- Frontier verifies code successfully migrated.

Monday

- Test decks run in production and results published within 5 days.



TC New Release Testing

Escalation Process

Purpose. To provide processes for TCs to raise and address issues arising during quality assurance testing of new releases with Frontier.

Prerequisites to Escalations. The expectation is that escalations should occur only after reasonable efforts have been made to resolve the issue with Frontier's testing team and test coordinator.

Escalation by a TC during Testing.

If reasonable efforts to resolve an issue with Frontier fail, an individual TC (or group of TCs acting jointly) may escalate the issue to the TC Testing Director.

The escalation and the subsequent responses and replies should take the form of e-mails, with copies to the industry change control distribution. The TC will also call the TC Testing Director to provide notification that an email was sent.

The escalation should include the following:

- An explanation of the issue.
- A brief history of the steps taken to resolve the issue with Frontier's testing team and testing manager.
- The desired outcome of the escalation.
- The impact to the TC if the issue is not resolved.
- Contact information, including name, title, phone number, and e-mail address.

The Director will acknowledge receipt of an escalation. The Director will provide the escalating TC with an initial finding within 1 business day and a final response within 2 business days.

The initial finding should include the following:

- A brief explanation of the issue, if different from that provided by the escalating TC.
- A brief statement of the likely resolution of the issue.

The response should include the following:

- The escalating TC must reply to the Director's response within 2 business days, informing Frontier whether the TC intends to escalate the issue further.
- An explanation of the issue, if different from that provided by the escalating TC.
- A description of the steps taken by Frontier to resolve the escalation.
- A proposed resolution of the issue.

If the Director fails to resolve the issue to the TCs satisfaction, the TC may escalate the issue to the Vice-President - Wholesale Customer Support over the TC Testing Process.

- The second escalation need not repeat information, but it should describe any developments subsequent to the first escalation, including a copy of the director's response.
- The Vice President will provide a final response within 1 business day.
- The reply need not repeat information, but it should describe any developments subsequent to the first escalation.



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- If unsatisfied with an outcome, either party can seek appropriate relief.

Sample PON Tracking Spreadsheet

TC Test Case	Version	Description	PON #	Date/Time Sent To Frontier	Pass / Fail	Issues
1	AA	Change Hunting from C to S, Add additional DL	TESTPON01	3/22/99 6:30p.m.	Fail	There should not be an ALI on second DL form because LACT is N
	AB			4/01/99 10:00 a.m.	Fail	REQTYP missing
	AC				Pass	LSC sent
2	AA	Change Hunting from P to M, change to Non- Pub	TESTPON02	3/22/99 6:30 p.m.	Pass	LSC sent
3	AA	Remove Foreign Listing	TESTPON03	3/28/99 1:00 p.m.	Fail	Failed in EDI for incorrect EDI sequence. Please review LSR to insure EDI segments in correct order.
	AB			3/30 11:50 a.m.	Fail	Initiator ID and Initiator tel no not sent.



Versioning of LSR Preorder and Order Application-to-Application Interfaces

Versioning refers to the introduction of a new version (as defined by standards bodies) of an interface and the retirement (decommissioning) of an earlier version.

Beginning with the decommissioning of LSOG 9, Frontier will maintain a single version of the LSOG preorder and order interfaces. As the industry publishes new issues/LSOG versions, Frontier will review the changes it plans to implement with the industry participants at Change Management meetings and will implement any changes and enhancements as incremental Type 3 initiatives in TC impacting releases as soon as possible after the industry issue is published.

There are two (2) situations when Frontier would maintain two (2) LSOG versions simultaneously. The first is when OBF publishes a new set of issues/LSOG version that causes Frontier to implement substantial changes that result in the creation of pipeline orders in the existing version. The second is when the ATIS industry body publishes changes to an application-to-application platform standard, which, if adopted by Frontier, would require Frontier to make substantial system changes to the structure of the application-to-application platform. If either of these situations arises, Frontier will review its plans to implement a second version of LSOG with industry participants via Change Management meetings. If Frontier and the industry agree that two (2) LSOG versions are necessary, Frontier will follow the Type 3 implementation process and will maintain two (2) LSOG versions for users of that application-to-application platform through the two (2) TC impacting releases following implementation, unless the application-to-application users participating in Change Management agree to a shorter time frame.

As changes are introduced to an existing LSOG version, a dot version of the Business Rules and Technical Specifications will be introduced. The previous dot version will be decommissioned immediately with the introduction of the new dot version. The TC will be required to move to the new dot version upon implementation.

When two (2) versions are required, the process to return to a single LSOG version will be accomplished using either a phased cutover or flash cut approach:

With a phased cutover, the oldest version will remain active for 30 days to receive LSRs for services with a date due no later than 30 days from the implementation date of the newest version. No LSRs including supplements will be accepted after 30 days. The oldest version will remain active up to an additional 30 days to allow for the return of notifies associated with completed LSRs previously submitted via the oldest version.

With a flash cutover, the oldest version will be retired immediately upon the implementation of the newest version.

Six months prior to implementation, Frontier will declare if it will be using the phased cutover or flash cut approach in implementing the newest version. At that time, Frontier will provide an overview of how the newest version will be implemented so that a CLEC who is familiar with the newest version can evaluate the degree of change caused by the implementation of the newest version. CLECs have two weeks to express valid objections to the method chosen via an e-mail to Change Control. Valid objections: (a) the differences between the release to be discontinued and the next current release are so great that a CLEC cannot practically migrate from the discontinued release to the next current release without the additional time provided by a phased approach; or (b) the next current release is unstable and not practically usable. If necessary, the objections will be resolved via the Change Control escalation process (see section XV).

Further, if between the six (6) month checkpoint described above and the time for discontinuing the release to be retired, an emergency circumstance arises that precludes a CLEC from completing the migration to the next current release, the impacted CLEC may notify Frontier of



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the circumstances and request a phased cutover approach. Frontier will consider the request in good faith and if it agrees that a phased approach is warranted for that CLEC, will employ a phased cutover approach to the extent then practical. Prior to agreeing to a phased cutover, Frontier may request the CLEC to undertake additional activity on its part.

In addition to the above procedure, at any time that all CLECs have migrated off of the oldest release, Frontier may retire that release.

Absent exceptional circumstances, enhancements and increases in functionality will only be made in the highest available LSOG version.

Preorder Interface

For the preorder application to application interface, the previous version will be decommissioned when the new version is implemented. During the time when two (2) LSOG versions are maintained, Frontier will support the current and previous versions until the previous version is retired.

Miscellaneous

During the time when two (2) LSOG versions are maintained, for both the order and preorder application to application interface, Frontier will ensure that both the current and previous versions of the interface may be used to order all offered products intended for ordering through the interface and that the versions remain compatible with all backend systems. However, functional enhancements, such as fielded completions, may only be made to the current version.

During the time when one (1) LSOG version is maintained, in the event significant errors are introduced into the code base during a release causing multiple TCs to have an inability to transact business with Frontier for more than one (1) day and a workaround or fix is not available in the short term, Frontier will determine the appropriate course of action. One possible option might be to back out the error causing code and implement the previous version of code.



Web GUI Version Control

The Web GUI will support the same LSOG version that is then available through application-to-application interfaces. When two (2) LSOG versions are maintained for application-to-application interfaces, the Web GUI will support only the newest LSOG version. There will be no impact on the TC pipeline orders. Orders transmitted in the previous version will be responded to in the new version.

Additionally, there are many changes that could be made to both the content and look and feel of the interface that would enhance utility and ease of use without impacting the application of business rules. Such changes would include adding pull-down menus to a field with multiple inputs. The actual inputs would be unchanged while the interactive capabilities of the environment would be enhanced. Frontier will provide 30 days advance notice of such changes. These changes will result in a new dot phase of the GUI (i.e., Phase III.1).

Only one phase of the Web GUI interface will be maintained unless the changes are so significant as to require extensive training on the part of the TC.

Electronic Bonding Interface

Upon request, Frontier will develop and deploy an Electronic Bonding Interface (EBI) that supports the maintenance/repair of resold local services and UNEs. The requesting TC and Frontier will enter into a Joint Implementation Agreement (JIA) describing the precise nature of the EBI implementation.

The requesting TC will pay Frontier for the cost of the development of any enhancements to the EBI in advance of industry standards. This money will be refunded to the TC if the enhancement becomes industry standard within 12 months of deployment by Frontier.

Versioning of the EBI interface will be part of the JIA. Enhancements will be managed through the Change Management Process and will be flash cut.



System Availability Notification

When Frontier systems implementing or supporting the OSS interfaces are subject to an availability change, Frontier must provide appropriate notification to the TCs of the change. Availability changes are categorized as follows:

System Outage

A Frontier system outage has occurred that prevents connectivity or prevents transaction processing, rendering the TCs unable to connect to Frontier through one of the production interfaces (e.g., Web GUI, EDI), and extends more than 20 minutes.

System Slow Response

Frontier systems are responding to TCs in a manner substantially slower than typical transaction processing through one of the production interfaces (e.g., Web GUI, EDI), over a period extending more than 60 consecutive minutes.

System Availability Schedule Changes

A change in System Availability that is to occur that differs from the published System Availability Schedule. System Availability Schedule and Exceptions are published on our website at: <https://wholesale.frontier.com/notifications-and-news/system-availability-exceptions>.

While the notification process for System Availability closely resembles the Type 1 Change Management notification process, these changes have a separate notification process.



Process Descriptions for System Availability Changes

The following provide detailed descriptions of the steps followed in the notification of system availability changes.

System Outage

1. Reporting of a System Outage

Either Frontier or a TC reports a system outage incident to the LSR VFO Helpdesk email: Local.Carrier.Services.Support@ftr.com

2. Assign a trouble ticket number and work to resolve the problem

The LSR VFO Helpdesk logs a trouble ticket for the reported system outage incident. A trouble ticket number is assigned to the reported incident. Once the incident is logged, the LSR VFO Helpdesk works with Frontier and TC support groups to resolve the problem.

3. Send initial industry notification

Within 1 hour of the TC reporting the system outage to the LSR VFO Helpdesk, when the incident is related to connectivity, or within 2 hours when the incident is related to transaction processing, Frontier sends a System Outage Bulletin.

If the issue has been resolved, the bulletin is marked "Final" in the subject field. If the issue is not resolved, the bulletin is marked "Initial" in the subject field.

4. Send final industry notification

Until the system outage issue is resolved, Frontier will continue to distribute System Outage Bulletins (marked "Update") in time intervals.

Once the system outage issue is resolved, Frontier creates a final System Outage bulletin to notify TCs of a final resolution to the system outage incident. The bulletin is marked "Final" in the subject field.

Slow Response

1. Reporting of a Slow Response Incident

A Slow Response incident is reported by either Frontier or a TC through the LSR VFO Helpdesk email: Local.Carrier.Services.Support@ftr.com

2. Assign a trouble ticket number and work to resolve the problem

The Frontier support group representative logs a trouble ticket for the reported slow response incident. A trouble ticket number is assigned to the reported incident. Once the incident is logged, the helpdesk works with Frontier and TC support groups to resolve the problem.

3. Send initial industry notification

Within 2 hours of the TC reporting the slow response Frontier will send a Slow Response Bulletin to notify TCs of a slow response incident. If the issue has been resolved, the bulletin is marked



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“Final” in the subject field. If the issue is not resolved, the bulletin is marked “Initial” in the subject field.

4. **Send final industry notification**

Until the slow response issue is resolved, Frontier continues to distribute Slow Response Bulletins (marked “Update”) in time intervals.

Once the slow response issue is resolved, the Frontier support group representative creates a final Slow Response bulletin to notify TCs of a final resolution to the slow response incident. The bulletin is marked “Final” in the subject field.

System Availability Change

1. **Post System Availability Schedule**

Frontier publishes the System Availability Schedule for the OSS Applications at:
<https://wholesale.frontier.com/notifications-and-news/system-availability-exceptions>.

2. **Identification of System Availability Schedule Exception**

System Availability Schedule changes are communicated via customer bulletin notification. Subscription to this type of notification can be requested at:
<https://wholesale.frontier.com/notifications-and-news/subscribe-to-wholesale-notifications>.



Change Log

Date	Page #	Change
11/11/14	22, 24	Update wholesale website domain in URLs
05/13/2016	23	Update new email address to report system issues
10/16/2017	All	Updated all embedded URLs to show as secured
10/24/2017	4	Corrected Introduction
03/05/2020	23	Update email address to report system issues
06/09/2021	All	Update embedded links

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