# Qwest Communications, Inc.

## EDI Implementation Guidelines – for Interconnect Mediated Access (IMA)

## Version 9.1

## Date

February 18, 2002

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**Abstract:**

This document will assist CLECs in understanding and successfully managing the process of implementing EDI trading capabilities between their organization and Qwest. The information in this document is specific to the use of the EDI interface to Interconnect Mediated Access system and should not be construed as being applicable to other EDI interfaces available from Qwest.

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# Document Information

Document Owner: Qwest EDI Lead Implementation Project Manager

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## Document History

All revisions made to this document are listed here in chronological order.

| Version | Date | Description |
|---|---|---|
| 1.0 | 01/07/00 | Initial Distribution |
| 2.0 | 04/12/00 | Revised Distribution |
| 3.0 | 12/08/00 | Revised Distribution |
| 4.0 | 04/23/01 | Revised Distribution Note:<br>VER 4.00 represents a rearrangement of prior IMA EDI information and the incorporation of Facility-Based Directory Listing implementation guidance. Changes to this document are reflected in archived redline/revision copies. Also, Certification Testing is now known as Controlled Production. |
| 5.0 | 07/25/01 | Revised to include Stand Alone Test Environment Implementation guidance and Service Bureau EDI Implementation Guidelines |
| 6.0 | 10/11/01 | The requirement for BANs to be loaded for EDI users was removed and a supplemental Order flow to Section 3, was added to the Technical Information. |
| 7.0 | 11/09/01 | Changed 'Testing' to 'Progression'. Added SATE data addition process. Moved information to Appendix A. Updated Appendix B - Service Bureau. URL links are live. Explained use of TPRs. Explained External Address Worksheet. |

| | | |
|---|---|---|
| 8.0 | 11/30/01 | Clarifications included: Process for addition of data to the SATE environment -Process for negotiating manually-generated responses during the Progression Phase - Interaction of the Interoperability environment with Qwest OSS - Minimum FBDL testing requirements for Progression and Controlled Production - URLs were added/updated as necessary. |
| 9.0 | 01/21/02 | Section of FBDL removed- now an IMA product. Explanation of SATE VICKI added. Flow diagrams added. Staffing Plan added as Appendix C |
| 9.1 | 02/18/02 | Flow diagrams changed. Clarification of combining Interoperability and SATE in Progression Testing.<br>The inability to submit a supplemental order via the GUI when initial order was sent via EDI and vice versa.<br>Clarification on Non-Fatals sent after an FOC. Clarification of minimum test requirements for Implementation and Migration |

**Important:** This document has been through a formal review process. To the best of our knowledge it is accurate. Qwest Communications, Inc. reserves the right to make further modifications, as necessary.

# Qwest Information Technologies
## EDI Implementation Guidelines – for Interconnect Mediated Access (IMA)

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# 1 Introduction

## *Purpose*

This document assists Competitive Local Exchange Carriers (CLECs) in understanding and successfully managing the process of implementing EDI trading capabilities between their organization and Qwest.

## *Audience*

This document is intended for organizations wishing to implement wholesale trading capabilities with Qwest for the exchange of Pre-Order, Order, and post-Order information via the IMA EDI interface. It also contains information regarding the Qwest Stand Alone Test Environment (SATE) that can be utilized for either regression testing of EDI interface software or progression testing that is related to the implementation of an IMA release. Service Bureaus, as related to an Implementation project, are covered in Appendix B.

## *Scope*

This document provides a general overview of the EDI Implementation Process. Additional information and documentation will be provided during implementation support meetings. The information in this document applies to the use of the IMA EDI interface and should not be construed as being applicable to other EDI/electronic interfaces available from Qwest.

## *Sections in this Guide*

This document is divided into three sections addressing the Implementation Process in terms of both the business and technical information. Following the Introduction, the Implementation Activities section addresses the Trading Partner requirements and processes in an EDI implementation project (or migration). The Technical section addresses system and interface issues, and the data syntax/business rules necessary to successfully create and submit electronic information via EDI to Qwest systems.

# *Acronyms*

| | |
|---|---|
| BA | Business Analyst (EDI Implementation Team) |
| CLEC | Competitive Local Exchange Carrier |
| CMP | Change Management Process |
| CM | Configuration Management |
| EDI | Electronic Data Interchange |
| FBDL | Facility Based Directory Listings |
| IPM | Implementation Project Manager (EDI Implementation Team) |
| IMA | Interconnect Mediated Access |
| IT I&D | Information Technologies Implementation and Deployment |
| LBA | Lead Business Analyst (EDI Implementation Team) |
| LOC | Listing Operations Center |
| LSR | Local Service Request |
| LIPM | Lead Implementation Project Manager (EDI Implementation Team) |
| LSOG | Local Service Ordering Guidelines |
| LSS | Listing Services System |
| LTS | Lead Technical Support Engineer (EDI Implementation Team) |
| OBF | Ordering and Billing Forum |
| OSS | Operational Support Systems |
| SATE | Stand Alone Test Environment |
| SYAD | System Administrator |
| TSE | Technical Support Engineer (EDI Implementation Team) |
| VICKI | Virtual Interconnect Center Knowledge Initiator |

# 2 Implementation Activities

The use of EDI provides an effective mechanism to automate the communication and processing of Order information and to reduce manual processes. The EDI Implementation Process will progress according to an agreed upon plan and timeline. The typical project phases for those CLECs implementing a given release will include:

1. **Initial Communications:** During this phase, all activities to initiate a CLEC's implementation are conducted, including the Kickoff conference call.

2. **Implementation or Migration Project Plan:** During this phase, the Implementation or Migration Project Plan is proposed and negotiated.

3. **Requirements Review:** The Requirements Review phase provides an opportunity for a CLEC to review Qwest's EDI system and business requirements and ask any questions they may have regarding those requirements.

4. **Firewall and IA-to-IA Testing:** During this phase, CLEC connectivity is established and tested. This phase includes the set up of the circuit, pushing of firewall rules, and IA configuration.

5. **Progression Testing**: This phase affords the CLEC the opportunity to validate their technical development efforts and to quantify LSR processing results. Qwest provides two environments for progression testing, Interoperability and SATE. A CLEC may use either environment or the combination of the two for Progression Testing.

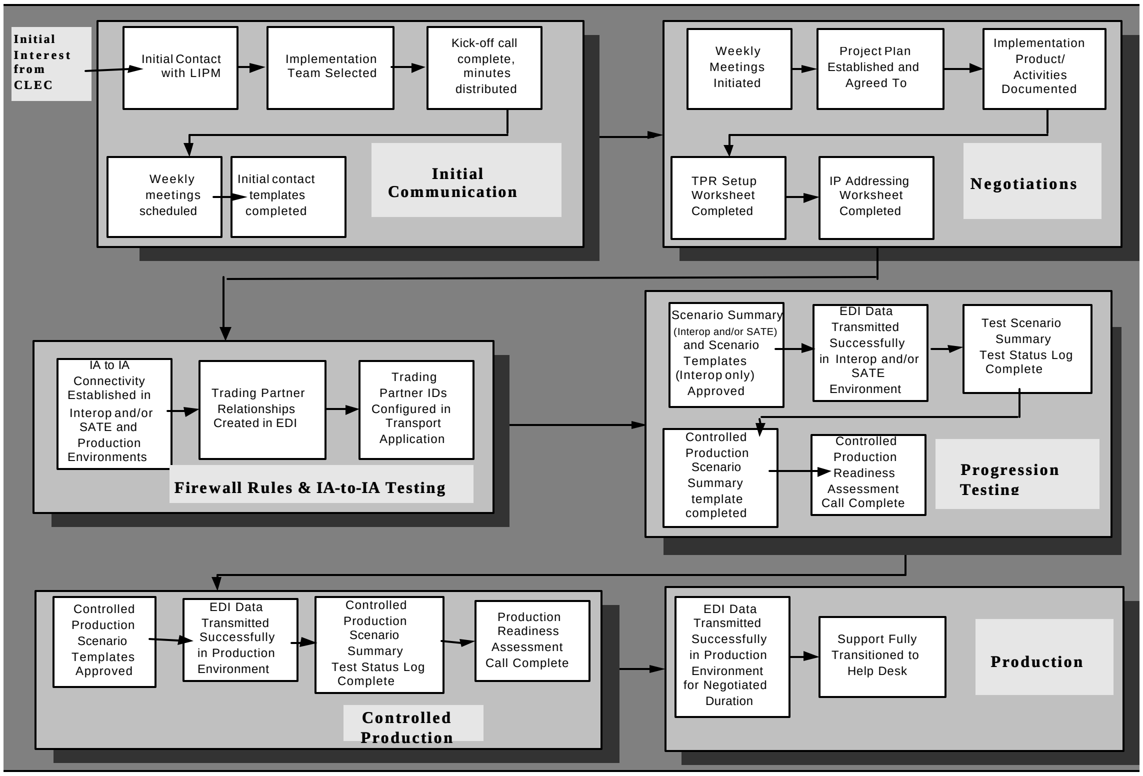
   If a CLEC chooses to test in both environments as part of a single Progression Testing Phase, the details of such an arrangement will be determined on the regularly scheduled CLEC implementation calls and reflected in the project plan. Additionally, certain activities, such as connectivity, may have to be repeated for each environment. During testing, it is the CLEC's responsibility to navigate between the two environments.

6. **Controlled Production:** This phase consists of the submission of CLEC requests to the Qwest production environment for provisioning, as production orders. Qwest and the CLEC use Controlled Production results to determine operational readiness for full Production turn-up.

7. **Production:** The CLEC is certified and able to submit full volumes of production LSRs and pre-order transactions to Qwest.

Figure 1 below provides an overview of the steps in each phase of a standard EDI Implementation process. Some activities are precursors to others that follow. Others may be done in parallel. For example, requirement review and Scenario template development may occur while connectivity is being established. The Firewall Rules and IA-to-IA testing phase steps can be environment specific with certain tasks needing to be repeated for each environment that the CLEC would like to utilize.

**Figure 1 IMA EDI Implementation Process Overview**


Initial Interest from CLEC
Initial Contact with LIPM
Implementation Team Selected
Kick-off call complete, minutes distributed
Weekly meetings scheduled
Initial contact templates completed
Initial Communication
Weekly Meetings Initiated
Project Plan Established and Agreed To
Implementation Product/ Activities Documented
TPR Setup Worksheet Completed
IP Addressing Worksheet Completed
Negotiations
IA to IA Connectivity Established in Interop and/or SATE and Production Environments
Trading Partner Relationships Created in EDI
Trading Partner IDs Configured in Transport Application
Firewall Rules & IA-to-IA Testing
Scenario Summary (Interop and/or SATE) and Scenario Templates (Interop only) Approved
EDI Data Transmitted Successfully in Interop and/or SATE Environment
Test Scenario Summary Test Status Log Complete
Controlled Production Scenario Summary template completed
Controlled Production Readiness Assessment Call Complete
Progression Testing
Controlled Production Scenario Templates Approved
EDI Data Transmitted Successfully in Production Environment
Controlled Production Scenario Summary Test Status Log Complete
Production Readiness Assessment Call Complete
Controlled Production
EDI Data Transmitted Successfully in Production Environment for Negotiated Duration
Support Fully Transitioned to Help Desk
Production

CLECs have the ability to utilize SATE to test EDI functionality without supervision or direct support separate from an Implementation or Migration. This process is called Regression Testing and occurs only in the SATE environment. Additionally, Third-Party Software Vendors or Service Bureaus may test their EDI with Qwest IMA EDI as part of a Regression Test, and should contact the LIPM directly, as they will not have an assigned Qwest Service Manager (see cover page for contact number). Additional information regarding Regression Testing can be found later in this document under the topic Regression Testing.

The following chart summarizes the relationship between IMA EDI Implementation testing phases and IMA EDI environments, specifically which environment(s) can be used for each testing phase.

Chart 1 IMA EDI Testing Phases vs. Environments

| Environments:<br>Testing Phases: | Interoperability | SATE | Production |
|---|---|---|---|
| Progression | ✔ | ✔ | |
| Regression | | ✔ | |
| Controlled Production | | | ✔ |

The following documents provide additional information on the Implementation Process or are designed to capture necessary business and configuration parameters. Distribution of these documents will occur as needed during the course of the implementation project.

Distributed prior to the kickoff call:

- Kickoff Agenda
- Question Log Template
- Frequently Asked Questions
- Generic Project Plan
- Contact List Template
- Qwest and Industry Website URLs

Distributed after the kickoff call:

- External Address Worksheet
- Trading Partner Identifier Worksheet
- Scenario Summary Template
- Scenario Template(s)
- IMA EDI Corrective Procedures and Error Codes
- IMA EDI SATE Data Request Form
- IMA FBDL Test Bed Data

Distributed during the Progression Testing phase:

- Qwest IMA EDI Troubleshooting Procedures

Additional information can be found on the IMA EDI website www.qwest.com/wholesale/ima/edi, including:

- Frequently Asked Questions
- IMA EDI SATE Data Document
- IMA FBDL Corrective Procedures and Confirmation/Error Codes
- Link to Disclosure Document
- VICKI Path Document

Information specific to each new release is made available to the CLEC based on the schedule in Table 1.

Table 1

| **PUBLICATION** | **SCHEDULED DELIVERY** |
|---|---|
| Baseline Candidates with Descriptions | 1 Wk. after scope commitment |
| Draft Developer Worksheets | 1 Wk. after scope commitment |
| Disclosure Document | 5 Wks. before Release Date |
| Change Summary | 5 Wks. before Release Date |
| Disclosure Document Addendum #1 | 2 Wks. after Release Date |
| Disclosure Document Addendum #xx | As Required |

## *Initial Communications*

This section explains the objectives of the Initial Communications activity regarding EDI trading capabilities. The Initial Communications discussion is intended to accommodate:

- A general description of the EDI interface
- An overview of the EDI Implementation Process
- Identification of applicable EDI documentation resources
- Determination of the specific EDI functionality to be implemented by the CLEC

When a CLEC is interested in implementing EDI, the Qwest Service Manager will put them in contact with the Lead Implementation Project Manager (LIPM) who will then provide an Initial Contact Questionnaire for the CLEC to complete and return. When the LIPM receives the completed Questionnaire, an Implementation Project Manager (IPM) will be assigned and a kickoff call will be scheduled. If a Third-Party Software Vendor or Service Bureau wants to use SATE for regression testing, they will contact the LIPM directly (see cover page for phone number) as they will not have a Qwest Service Manager.

The following activities will occur as part of the project initiation meeting (Kickoff call) between Qwest and the CLEC:

- Provide overview of the EDI Interface to Qwest IMA ordering systems
- Review of Qwest Data Transport Requirements
- Introduce Qwest and CLEC team members and identify roles and responsibilities
- Identify the objectives and scope of the products to implement
- Identify the available EDI interface release version and the timeframes within which the Implementation Project steps will be performed
- Review the Implementation Guidelines and the Implementation Processes
- Discuss the Progression Testing environment options – SATE and/or Interoperability environment. Negotiation of manually-generated Post-Order transaction responses, if the interoperability environment is chosen.
- Review documentation resources
- Discuss administrative processes

Each CLEC will be provided with a Qwest EDI Implementation Team. The Team members will work with the CLEC throughout the CLEC's EDI Implementation. Each Qwest EDI Implementation Team will consist of:

- Implementation Project Manager: Responsible for facilitating meetings, coordinating overall Project Plan, and is the primary point of contact for CLEC implementation process.
- Business Analyst: Responsible for providing assistance with the business rules and processes associated with the products offered by Qwest via EDI.
- Technical Support Engineer: Responsible for facilitating the implementation processes from a systems standpoint.

## Project Plan Development/Negotiation

A formal Implementation/Migration Project Plan that represents the milestones and responsibilities of all parties throughout the planned EDI implementation or migration process will be mutually negotiated. Regularly scheduled conference calls will be conducted to review progress, answer questions, and identify and communicate resolution of issues. The respective project managers will be responsible for maintaining and monitoring progress within the Project Plan. If Progression Testing occurs in the interoperability environment, Qwest will negotiate with the CLEC the number of, and manner in which, manual post-order transactions will be returned to the CLEC. A mutual negotiation and approval process will be used to manage changes to schedules as recommended or required by either party. All parties will give sufficient advance notice to the other party to allow adequate analysis of the impact of any proposed schedule changes.

The inability of either party to meet any of the milestones contained in the Implementation or Migration Project Plan on the date(s) identified may result in the need to renegotiate a revised Implementation Plan. All revised plans will be developed based on the availability of resources from within the respective organizations and may contain dates that are substantially different from those described in the original plan.

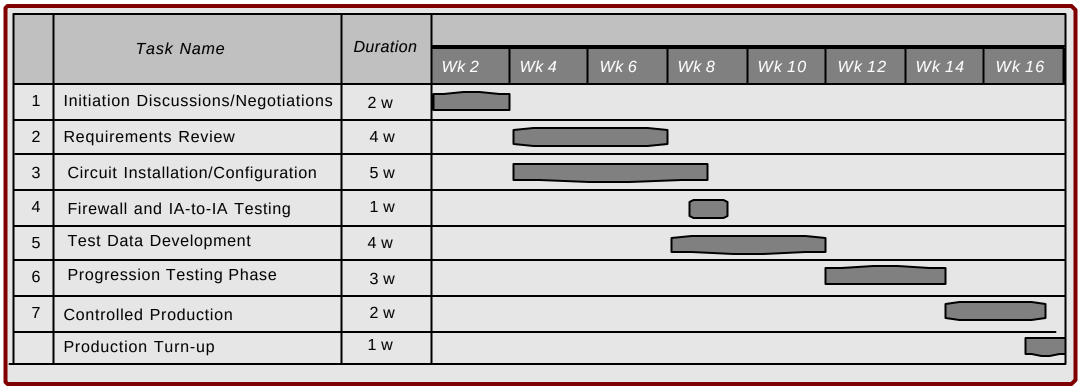
For Regression Testing in SATE a formal Usage Plan will be developed to indicate the volume and timing of SATE activity.

The development of, and agreement to, a formal Implementation/Migration Project Plan or SATE Usage Plan is the pre-requisite to beginning the Implementation Process or SATE regression testing activity.

## Typical Implementation Timeline

The following diagram illustrates a typical implementation timeframe (Figure 2). Actual implementation duration will depend on the number of EDI transactions to be implemented, resource availability, project scope, and other factors.

Figure 2 Sample Implementation Project Timeline (Illustrative Only)



| | Task Name | Duration |
|---|---|---|
| 1 | Initiation Discussions/Negotiations | 2 w |
| 2 | Requirements Review | 4 w |
| 3 | Circuit Installation/Configuration | 5 w |
| 4 | Firewall and IA-to-IA Testing | 1 w |
| 5 | Test Data Development | 4 w |
| 6 | Progression Testing Phase | 3 w |
| 7 | Controlled Production | 2 w |
| | Production Turn-up | 1 w |

This diagram presents a high-level description of implementation phase with typical timelines for the implementation of one to three (1-3) EDI transaction types. If a CLEC desires to implement more than three EDI transactions and/or Complex Facility Based Directory Listings[1], the project team will adjust the timelines accordingly.

Qwest recommends that a phased approach be used when implementing multiple EDI transactions. Using a phased approach, the CLEC chooses the EDI transactions that are most important to their business plan. The most important EDI transactions would be implemented first. Additional EDI transactions would then be implemented in phases during the implementation that is already underway or once the initial EDI transactions are already in production. A detailed Project Plan representing each phase will be mutually defined. The plans will describe the specific activities to be performed in support of each phase of implementation for each EDI transaction.

Regression testing (by a CLEC, Third Party Software Vendor, , or Service Bureau) would also include the same initial activities, steps 1-4 above. In the discussion of these steps in the following sections of this document, requirements noted for ‘CLECs’ will also pertain to Service Bureaus and Third-Party Software Vendors as explained in Appendix B – Service Bureau EDI Implementation Guidelines.

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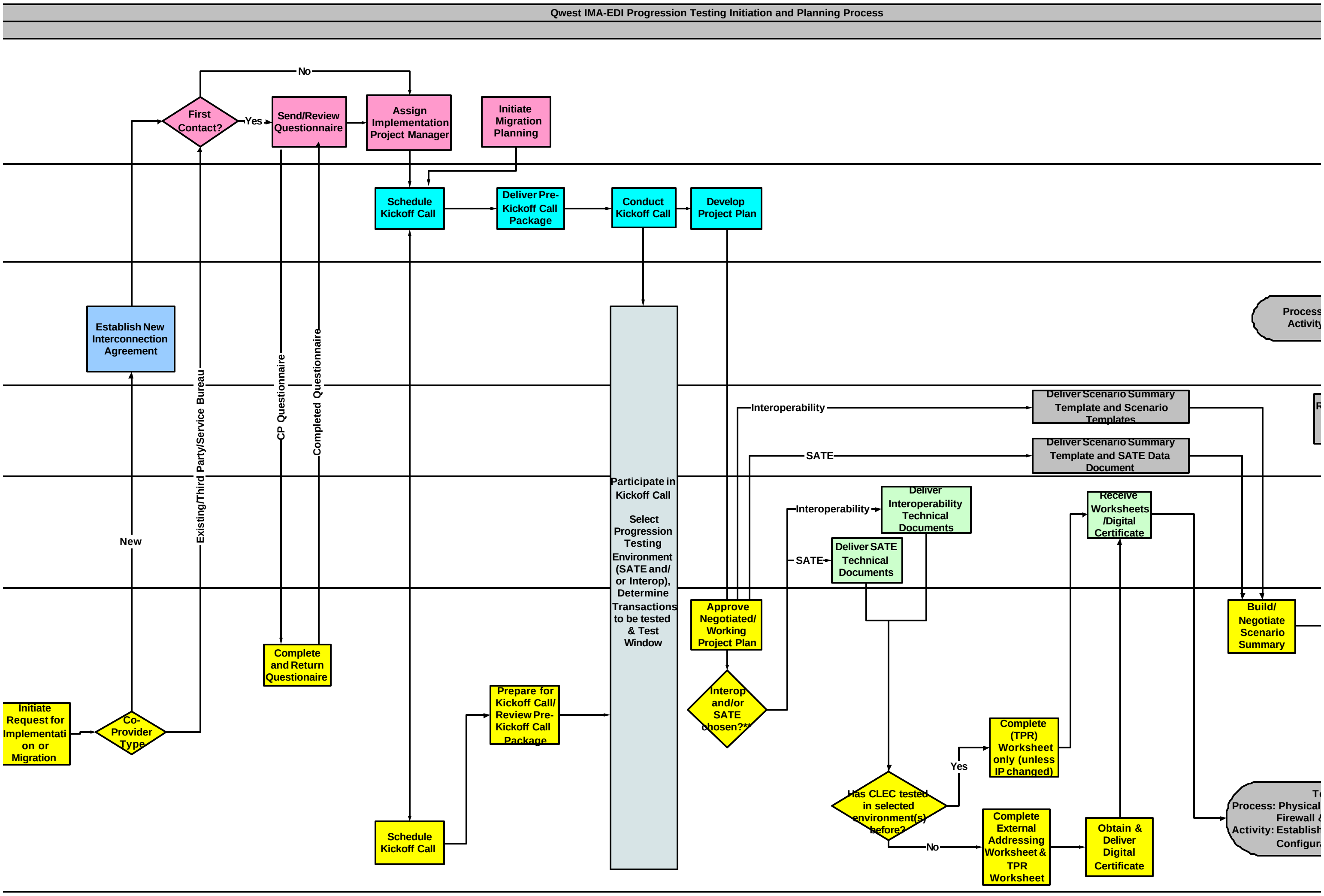
[1] If CLEC elects to implement Complex Facility Based Directory Listings, the Testing timeline may extend to seven weeks due to the complexity of this product.

# Progression Testing Initiation and Planning Flow Diagram


Qwest IMA-EDI Progression Testing Initiation and Planning Process
First Contact?
No
Yes
Send/Review Questionnaire
Assign Implementation Project Manager
Initiate Migration Planning
Schedule Kickoff Call
Deliver Pre-Kickoff Call Package
Conduct Kickoff Call
Develop Project Plan
Establish New Interconnection Agreement
Process Activity
Existing/Third Party/Service Bureau
CP Questionnaire
Completed Questionnaire
New
Interoperability
SATE
Deliver Scenario Summary Template and Scenario Templates
Deliver Scenario Summary Template and SATE Data Document
Participate in Kickoff Call
Select Progression Testing Environment (SATE and/ or Interop), Determine Transactions to be tested & Test Window
Deliver Interoperability Technical Documents
Deliver SATE Technical Documents
Receive Worksheets /Digital Certificate
Approve Negotiated/ Working Project Plan
Build/ Negotiate Scenario Summary
Complete and Return Questionaire
Initiate Request for Implementation or Migration
Co-Provider Type
Prepare for Kickoff Call/ Review Pre-Kickoff Call Package
Interop and/or SATE chosen?**
Complete (TPR) Worksheet only (unless IP changed)
Has CLEC tested in selected environment(s) before?
Yes
No
Complete External Addressing Worksheet & TPR Worksheet
Obtain & Deliver Digital Certificate
Schedule Kickoff Call
Process: Physical
Activity: Establish
Firewall &
Configur

Note: Serial progression through the processes is not required as some tasks may be performed in parallel

**If the CLEC chooses to complete progression test simultaneously in both Interoperability and SATE, the CLEC must follow activities along the paths for both environments.

## *Requirements Review*

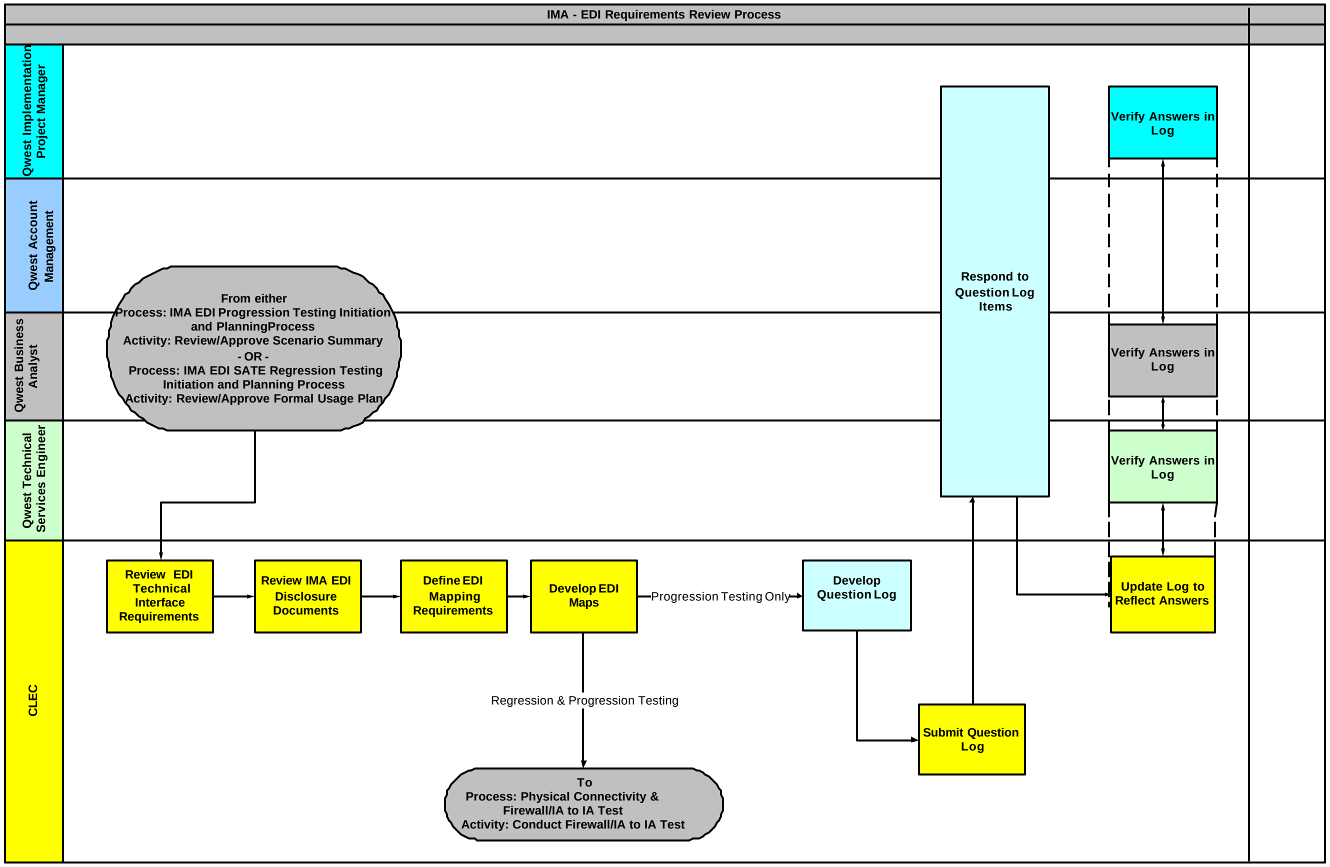
A critical factor in a successful implementation is a thorough understanding by the CLEC of the Qwest EDI interface. The requirements review phase of implementation will provide the CLEC with an opportunity to develop a clear understanding of Qwest requirements for IMA. This review is critical to the CLEC who must:

- Develop and define the business processes and procedures necessary to support the use of their EDI interface for IMA transactions.
- Develop the appropriate documentation (i.e., Methods and Procedures) necessary to support the use of the EDI interface by CLEC personnel.

- Perform any necessary database gap analysis for the purpose of ensuring that all data fields that carry the EDI information can be successfully populated.
- Identify appropriate data values.
- Select Pre-Order transactions to support the intended products to be ordered through EDI.

  NOTE: Qwest strongly recommends the use of Pre-Order transactions to assist CLECs in achieving Order content accuracy, reducing rejection rates, and improving Service Order flow-through.

While it is the CLEC's responsibility to perform a thorough review of all Qwest requirements, Qwest BAs will provide support to clarify issues and answer questions regarding the EDI interface business rules, requirements, and the Implementation Process. Questions arising from the CLEC's review of EDI requirements will be captured on a Question Log. The Question Log, with questions populated by the CLEC, will be submitted to Qwest. Qwest will provide answers to outstanding questions and the CLEC will update the log to reflect their understanding of the answers provided. Qwest will review the answers entered by the CLEC in the log after which the CLEC may indicate that a question may be closed if it has been adequately answered.


IMA - EDI Requirements Review Process
Qwest Implementation Project Manager
Qwest Account Management
Qwest Business Analyst
Qwest Technical Services Engineer
CLEC
From either
Process: IMA EDI Progression Testing Initiation and PlanningProcess
Activity: Review/Approve Scenario Summary
- OR -
Process: IMA EDI SATE Regression Testing Initiation and Planning Process
Activity: Review/Approve Formal Usage Plan
Review EDI Technical Interface Requirements
Review IMA EDI Disclosure Documents
Define EDI Mapping Requirements
Develop EDI Maps
Progression Testing Only
Develop Question Log
Regression & Progression Testing
To
Process: Physical Connectivity & Firewall/IA to IA Test
Activity: Conduct Firewall/IA to IA Test
Submit Question Log
Respond to Question Log Items
Verify Answers in Log
Verify Answers in Log
Verify Answers in Log
Update Log to Reflect Answers

Note: Serial progression through the processes is not required as some tasks may be performed in parallel

# Qwest Requirements Documentation Overview

The Qwest EDI Disclosure Documents present Qwest EDI interface requirements on a transaction or product-specific basis. The Disclosure Document is issued and available on the Qwest website five weeks prior to each release with a change summary from the prior release. When the Disclosure Document for a release is available, a release notification is distributed to the CLECs.

The content of the document may change after issuance, as the release is not yet deployed. To notify CLECs of any changes to the Disclosure Document, Qwest will issue an Addendum to the Disclosure Document two weeks after the release is issued. The Addendum will be placed on the Qwest website and a Release Notification will be distributed to the CLECs. Additionally, the Disclosure Document will be updated to reflect the latest changes and the individual transaction chapters will show an updated date in the chapter title to indicate that the content in that chapter has been updated.

The Disclosure Document contains a chapter for each transaction or product. Each chapter contains the following sections:

- Business Description—provides a general overview of the business functionality and describes the Local Service Ordering Guidelines (LSOG) forms to be used when submitting a particular pre-order transaction or ordering a particular product
- Business Model—describes the electronic communication that comprises the complete business transaction cycle for a particular EDI functionality and presents the sequence by which these electronic communications will be exchanged. This appears as an appendix for all order products.
- Trading Partner Access Information—outlines data values for the ISA and GS segments, describes delimiter use, and indicates the version of the industry standard upon which an EDI transaction or Order is based
- Mapping Examples—defines the syntax and structure of the EDI transaction data
- Data Dictionary—offers a description of the individual EDI segments and elements that are contained within a particular transaction

Disclosure Appendices contain:

- Developer Worksheets
- IMA Additional Edits
- Developer Worksheets Change Summary
- EDI Mapping and Code Conversion Changes
- Generic Order Flow Business Model

The content of the Disclosure Document is described in further detail in the Technical Section of this document.

The disclosure documents can be found at:

http://www.qwest.com/disclosures/netdisclosure409.html

## *Establishing a Dedicated Circuit*

A dedicated circuit is needed before implementing the Qwest IMA/EDI interface, regardless of environments(s) to be utilized. This will provide a secure network to send and receive data between Qwest and the CLEC, providing an efficient means to transport high volumes of data. The same circuit can be used to connect to the production environment, the interoperability environment, and SATE simultaneously.

It is also feasible to share a circuit already being used between Qwest and the CLEC (or a Service Bureau). If a circuit is shared, it is critical for the circuit owner to monitor the transmission volumes as performance issues could be impacted. Qwest will require a letter of authorization (LOA) from the circuit owner when a circuit is shared.

When a CLEC or Service Bureau requires use of multiple circuits, two options are available and should be chosen based on the CLEC's Implementation Plan. The Data Network Information and Requirements Form is used to communicate selection of one of the following two options to Qwest:

- Option 1. Load Balancing - allows transmissions to be distributed across multiple circuits.
- Option 2. Redundancy - allows transmissions to travel over the secondary route, in the event of a circuit failure.

The dedicated circuit can be ordered from the carrier of the CLEC's choice. Qwest is able to accommodate a Frame Relay circuit or a point-to-point connection. Currently, Qwest does not support a dial up application or an ISDN circuit for the IMAEDI interface. The bandwidth requirements for connectivity to the IMAEDI interface are a T-1, fractional T-1, or 56K line. Determining the bandwidth sizing is a function of estimating the number of concurrent users accessing an application, the number of applications riding on the facility, and the contentions for access between those 'user instances'. Qwest recommends that a facility engineer be consulted to determine the bandwidth size required to accommodate the CLEC's specific needs.

Qwest requires that the CLEC's circuit terminate at a Qwest data center demarcation point. These demarcation points are located in Denver, Colorado and Omaha, Nebraska.

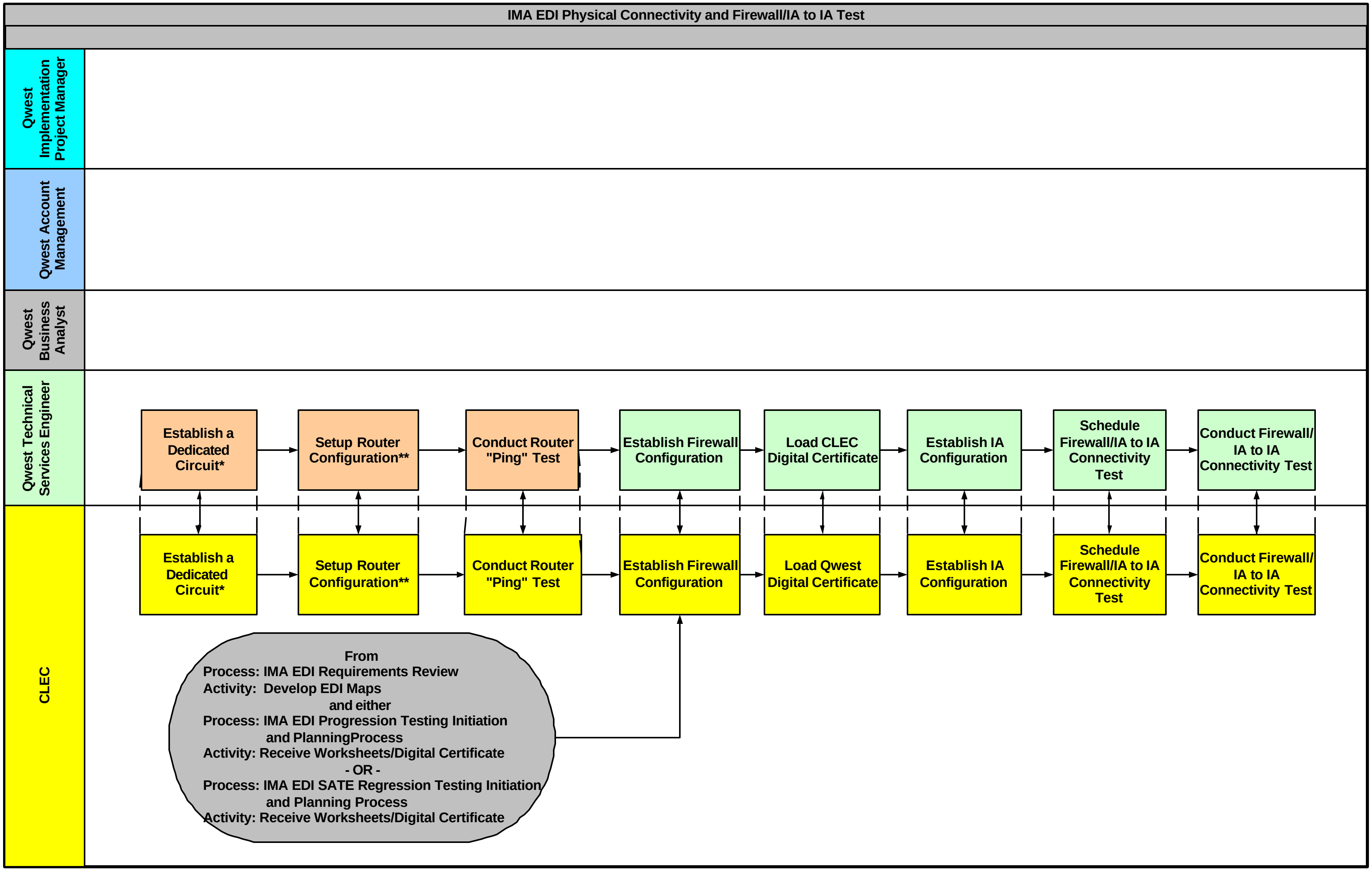
The CLEC's circuit will need to be connected to the Qwest router located at one of the two data centers. This will require an internal circuit order to be issued and provisioning can take approximately 30 to 45 days from the date the request is correctly submitted. The internal order will not be placed until a Qwest circuit ID, Qwest order number, and a due date is provided by the CLEC to the Qwest EDI Implementation team. This information identifies the terminating point of the CLEC's incoming circuit. If further circuit information is needed, please contact your Qwest EDI Implementation team.

The router configuration step completes the physical network connection when access is granted from the CLEC's external registered IP addresses to the Qwest firewall. To initiate the router configuration request, all data elements on the Data Network Information and Requirements Form must be filled out and returned to the Qwest EDI Implementation Team. It is expected that Qwest router configuration will be completed within five (5) business days from the date the request for access is submitted. The subsequent testing of this network connectivity may take as little as one day. However, if access to the external circuit is not readily available, this activity must be rescheduled.

Upon completion of the necessary connectivity configuration requirements, a router/hardware connectivity test (ping) is scheduled. This test is the last phase in completing the physical connectivity configuration to the IMA EDI application. Connectivity testing usually consists of Qwest and the CLEC pinging and telnetting each other's systems and verifying the responses were as expected. The intent of this test is:

- To verify that the physical requirements of the connectivity configuration have been met by Qwest and the CLEC.
- To ensure that EDI hardware of both parties is able to communicate effectively over the circuit.

Subsequent to the connectivity test, the CLEC must obtain a signed-authorized Digital Certificate. Digital Certificates are required and take approximately four to five business days to obtain. A Service Bureau must obtain a unique, signed-authorized digital certificate for each CLEC using the Service Bureau (See Appendix B, Service Bureau EDI Implementation Guidelines). [Please refer to the requirements of TCIF for further explanation regarding the use of digital certificates.]


IMA EDI Physical Connectivity and Firewall/IA to IA Test
Qwest Implementation Project Manager
Qwest Account Management
Qwest Business Analyst
Qwest Technical Services Engineer
CLEC
Establish a Dedicated Circuit*
Setup Router Configuration**
Conduct Router "Ping" Test
Establish Firewall Configuration
Load CLEC Digital Certificate
Establish IA Configuration
Schedule Firewall/IA to IA Connectivity Test
Conduct Firewall/ IA to IA Connectivity Test
Establish a Dedicated Circuit*
Setup Router Configuration**
Conduct Router "Ping" Test
Establish Firewall Configuration
Load Qwest Digital Certificate
Establish IA Configuration
Schedule Firewall/IA to IA Connectivity Test
Conduct Firewall/ IA to IA Connectivity Test
From
Process: IMA EDI Requirements Review
Activity: Develop EDI Maps
and either
Process: IMA EDI Progression Testing Initiation and PlanningProcess
Activity: Receive Worksheets/Digital Certificate
- OR -
Process: IMA EDI SATE Regression Testing Initiation and Planning Process
Activity: Receive Worksheets/Digital Certificate

Note: Serial progression through the processes is not required as some tasks may be performed in parallel

**All steps noted must be completed in both the SATE and Interoperability environments if testing is to occur in that environment - with the exceptions noted below**

*Step is Environment-Independent - only one circuit is required for all Progression, Regression and Production activity

**Step may be Environment-Dependent - must be repeated for each environment if CLEC is not using the same IP to test in both the Interoperability and SATE environments

## *Scenario Summary and Template Development and Approval*

During Progression Testing and Controlled Production, the set of required Scenarios that are to be tested will be mutually agreed upon and represented by the CLEC on a Scenario Summary. The following bullets indicate the activities to be performed during this process depending upon the testing phase and environment utilized.

- For Progression Testing in the Interoperability environment and Controlled Production, the CLEC will submit the Scenario Summary and individual Scenario Templates. The Qwest BA will review both sets of and work with the CLEC until the Summary is approved and all Scenario Templates include data that can be submitted via EDI.

- For Progression Testing in the SATE environment, CLECs will submit only the Scenario Summary using an adequate description of the expected results with the actual scenario number from the data document to represent the scenarios on the Scenario Summary. The Qwest BA will review the SATE Summary with the CLEC making the corrections needed for approval. (See 'Scenario Creation' in Progression and Controlled Production sections).

- For Progression Testing in both the Interoperability and SATE environments, the CLEC will complete on Scenario Summary document indicating the environment in which each scenario will be tested. The scenarios on the Summary document should use an adequate description of expected results with the actual scenario number from the data document. Additionally, the CLEC will submit the individual Scenario Templates for the scenarios to be tested in the Interoperability environment. The Qwest BA will review the submitted documents and work with the CLEC until the Summary is approved and all Scenario Templates include data that can be submitted via EDI.

For any transactions to be sent to Qwest via EDI, data for the transmittal must be correctly structured. IMA and FBDL Scenarios contain the written data that will comprise the electronic information to be submitted in the transaction. The Scenario data used in either the SATE or Interoperability environment must comply with the Developer Worksheet guidelines in terms of format, syntax, and business rules that govern the electronic data transfer process.

### Scenario Summary Review Cycle

The **Scenario Summary** review process for Progression Testing and Controlled Production will occur as follows:

1. The CLEC populates the Scenario Summary template with the scenarios the CLEC plans to test, with the expected responses.
2. The Qwest BA determines whether the CLEC has included appropriate scenarios on the Summary to meet the minimum requirements for Progression Testing, Controlled Production, or Migration to a new release. The BA then reviews the Summary and provides revision marks and comments to the CLEC according to the guidelines established in this document.

3. The CLEC corrects the Scenario Summary based upon any feedback from Qwest and resubmits it to the Qwest BA review.
4. Tasks 2 and 3 repeat until the Scenario Summary is correct and approved by Qwest.

## Scenario Review and Approval Process

The individual **Scenario Template** review process for Progression Testing via the Interoperability environment and for Controlled Production) will occur as follows:

1. The CLEC populates the Scenario Templates with the appropriate information to test the expected responses.
2. The Qwest BA reviews the individual Scenario Templates according to the guidelines established this document and against the approved Scenario Summary. Qwest then provides the revision marks and comments back to the CLEC.
3. The CLEC corrects the Scenario Templates based upon any feedback from Qwest and resubmits them to the Qwest BA for review.
4. Tasks 1 and 2 repeat until the Scenario Templates are correct and approved by Qwest.

The CLEC sends all final copies of the Scenario Summary and individual Scenario Templates to the Qwest BA. These final versions should exactly match the EDI information as it is actually submitted and successfully tested.

While reviewing the Scenario Templates, for either Progression Testing via the Interoperability environment or the Controlled Production Phase, the Qwest BA will perform the following data validations, as appropriate:

- The address will be validated.
- The AN will be validated.
- The transaction will be reviewed to ensure that all necessary fields are populated correctly and that all business rules outlined in the appropriate release-specific Disclosure Document and Developer Worksheets were followed.
- USOCs and FIDs will be reviewed to ensure that they are formatted correctly.
- NC/NCI Codes will be validated against IMA, not against the CLEC contract.

## Scenario Review Cycle

For each set of ten (10) Scenario Templates submitted to the Qwest BA, the CLEC should expect a five (5) business-day turn-around on each Qwest review cycle. For each set of five (5) Controlled Production Scenarios submitted, the CLEC should expect a four business-hour turn-around on each Qwest review cycle. If the number of scenarios is extensive, it is expected that a subset will initiate the review cycle and the remainder will be submitted, reviewed, and returned in a ‘phased’ sequence (or as negotiated). This will allow the returned set to be corrected by the CLEC while Qwest is reviewing the remainder. This may also alert the CLEC to initial errors that can be corrected on subsequent scenarios before being submitted to Qwest for review. Depending on the nature and number of errors identified during review, multiple review/revision cycles may extend the actual project timeline. Qwest will return review comments using the Comments Log method identified in the Comments Log section of this document.

## Comments Log

The Comments Log is used by the Qwest BA to provide all comments regarding Scenario Templates to the CLEC. The log also provides a reference of all historical comments made regarding specific Scenario Templates. The comments will be in a table that provides a cross-reference to indicate the Scenario number and field to which the comments apply, in addition to the reason why the noted item is an issue.

Example of a Scenario Template Table in the Comments Log:

| PON | Description | Comments |
|---|---|---|
| LOOP1 | New Loop | • LOCNUM (EUI7) is required on loop Orders. |

# *Firewall and IA-to-IA Testing*

## Definition

Once a hardware router connectivity 'ping' test has been successfully completed, a Firewall and IA-to-IA Connectivity testing call will be scheduled to occur a few days prior to the start of the Progression Testing Phase. This test will verify the communications between the trading partner and Qwest. Qwest must also establish the CLEC as a Trading Partner on the firewall and within the translator. Qwest recommends the established Trading Partner Relationship (TPR) remain the same for the Testing (SATE and/or Interoperability) and Production environments.

The External Address Worksheet is used by Qwest to establish its Firewall configuration. The External Address worksheet will display the unique IP addresses used by Qwest in the Interoperability, SATE, and Production environments. The CLEC will be required to use a unique IP/port combination between the test and production environments. However, a CLEC can choose to use the same IP/port combination for both the SATE and Interoperability environments. Once the Qwest TSE receives the External Address worksheet from the CLEC, Qwest will initiate the addition of these IP addresses to the Qwest firewall rules. The addition of new firewall rules will take five (5) business days.

If the same ID is used for Test and Production by the CLEC then Qwest will modify the port number to which the CLEC sends. This ensures to Qwest that test transactions will not be sent to the production environment by the CLEC.

The TPR Worksheet is used by Qwest to establish its IA-to-IA configuration for the CLEC. The Qwest TSE will complete a draft TPR worksheet and send this to the CLEC. The CLEC should review the worksheet and return it with any changes or approval within five (5) business days of receipt. Once approval of the TPR worksheet is granted from both parties, Qwest will configure the TPRs within Interoperability and/or SATE within five (5) business days. Qwest can place these TPRs into the production environment within five business days of completion of Progression testing.

Firewall and IA-to-IA connectivity is established during each phase of implementation:

- Progression (Interoperability and/or SATE)
- Controlled Production

To provide assistance with any connectivity issues that might arise, it is recommended that the following CLEC technical personnel join this Firewall and IA-to-IA configuration Testing call:

- Security/firewall technician
- Transport/connectivity technician
- Tester

## Entrance Criteria – Firewall and IA-to-IA Testing

Before the Firewall and IA-to-IA Testing can occur, the following steps must be completed:

- A dedicated circuit must be in place, and the hardware connectivity test must be completed.
- The CLEC must have installed and configured the Interactive Agent software.
- The CLEC must have returned the External Address Worksheet and the Trading Partner Identifier Worksheet form to Qwest.
- Qwest must establish the CLEC as a trading partner on its systems.
- Qwest and the CLEC must configure their systems to allow for electronic transaction or Order data to be sent between one another.
- Exchange of Digital Certificates between Qwest and the CLEC must be completed.

## Process - Firewall and IA-to-IA Testing

The following steps will occur during Firewall and IA-to-IA Testing:

1. In the Project Plan, a mutually agreed upon date for Firewall and IA-to-IA Testing will be established and a testing call will be set up for this date. At the agreed upon date/time, representatives for the CLEC and Qwest will join the call.

2. The CLEC will send Qwest an 850 transaction with invalid data therefore inducing a BPL system error (or one of their approved test case scenarios).

3. When the 850 transaction is received, Qwest will send the CLEC a 997 functional acknowledgement and the appropriate 855 response if the transaction passes X-12 standard edits. A 997 functional acknowledgement from the CLEC for the Qwest response completes this cycle. If problems arise during this process step, each problem/issue will be reviewed and resolved with the necessary project team members via scheduled conference calls.

Successful completion of these steps will confirm that the Firewall and the IA configuration has been correctly configured.

## Exit Criteria – Firewall and IA-to-IA Testing

To demonstrate successful Firewall and IA-to-IA Testing, the following must occur:

- Qwest must receive an 850 transaction generated by the CLEC.

- CLEC must acknowledge receipt of the Qwest 997 indicating receipt of the 850.
- The CLEC must receive the 855 response from Qwest.
- Qwest must receive from the CLEC the 997 associated with the 855 from Qwest.
- Qwest and the CLEC must agree that the test was successful and Firewall and IA-to-IA configuration has been correctly established.

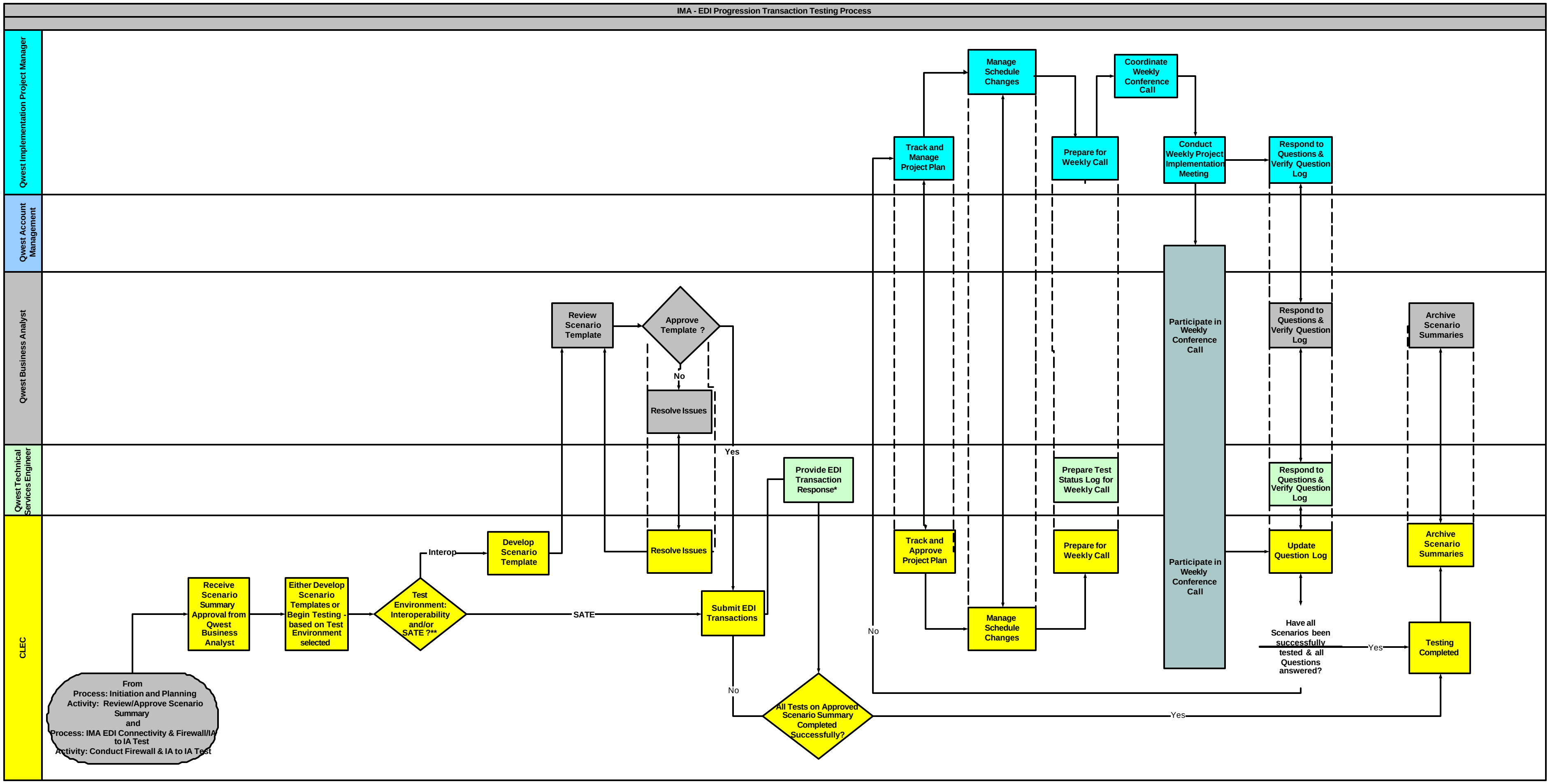
## *Progression Testing Phase*

The Progression Testing Phase affords the CLEC the opportunity to validate their technical development efforts and to quantify LSR processing results. Progression Testing will identify the CLEC's ability to submit correct EDI transactions through the IMA system. Qwest makes two environments available for CLEC use during the Progression Testing phase: Interoperability and SATE. These testing environments are described in more detail in the following sections of this document. –The chart below identifies the functionality provided by each environment (see Chart 2 SATE vs. Interoperability Functionality).

Chart 2 SATE vs. Interoperability Functionality

| **SATE** | **Interoperability** |
|---|---|
| Flow Through | No Flow Through |
| Automated Responses | Manual Responses |
| Provided Test Data | CLEC must use valid Qwest data |
| Common Products Supported (See page 31) | All IMA products supported |

A CLEC may choose to use one or both of Qwest's two testing environments. If a CLEC chooses to use both environments during a single implementation or migration, the CLEC should indicate on the scenario summary which environment will be used to test each scenario.


IMA - EDI Progression Transaction Testing Process
Qwest Implementation Project Manager
Qwest Account Management
Qwest Business Analyst
Qwest Technical Services Engineer
CLEC
From Process: Initiation and Planning Activity: Review/Approve Scenario Summary and Process: IMA EDI Connectivity & Firewall/IA to IA Test Activity: Conduct Firewall & IA to IA Test
Receive Scenario Summary Approval from Qwest Business Analyst
Either Develop Scenario Templates or Begin Testing - based on Test Environment selected
Test Environment: Interoperability and/or SATE ?**
Interop
SATE
Develop Scenario Template
Review Scenario Template
Approve Template ?
No
Yes
Resolve Issues
Resolve Issues
Submit EDI Transactions
Provide EDI Transaction Response*
No
All Tests on Approved Scenario Summary Completed Successfully?
Yes
No
Track and Manage Project Plan
Track and Approve Project Plan
Manage Schedule Changes
Manage Schedule Changes
Prepare for Weekly Call
Prepare Test Status Log for Weekly Call
Prepare for Weekly Call
Coordinate Weekly Conference Call
Conduct Weekly Project Implementation Meeting
Participate in Weekly Conference Call
Participate in Weekly Conference Call
Respond to Questions & Verify Question Log
Respond to Questions & Verify Question Log
Respond to Questions & Verify Question Log
Update Question Log
Have all Scenarios been successfully tested & all Questions answered?
Yes
Testing Completed
Archive Scenario Summaries
Archive Scenario Summaries

Note: Serial progression through the processes is not required as some tasks may be performed in parallel

* Order responses in Interoperability are generated by the Technical Services Engineer.
Order responses in SATE may be generated by the Technical Services Engineer or by VICKI, as appropriate.

**If the CLEC chooses to complete progression test simultaneously in both Interoperability and SATE, the CLEC must follow activities along the paths for both environments.

# Stand Alone Test Environment Overview

Qwest has developed a Stand-Alone Testing Environment (SATE) to take Pre-Order and Order requests, pass them to the stand-alone database, and return responses to the SATE user. SATE uses test account data and requests that are subjected to the same IMA/EDI edits as those used in production. For SATE users, Qwest will provide the account data (see IMA EDI SATE Data Document). Order scenario submissions do not leave the SATE testing environment and do not affect the existing production data, nor are they provisioned while in use for the Progression Testing Phase.

The goal of SATE is to supply a test environment that can be used to accomplish the following:

- Test an EDI application against real IMA functionality - SATE provides an unsupervised test environment that does not rely on real production systems but, at the same time, interacts with the SATE user's application in the same manner as IMA EDI production systems.
- Test EDI maps via consistent responses – a primary benefit of both regression and progression testing.
- Run Pre-Order transactions, Orders, and Post Order transactions, including cancellations and Supplemental transactions, and receive error messages and consistent responses as a result.
- Practice the creation and submission of LSRs via the EDI interface.
- Enable the CLEC to identify where to review their business processes and modify the technology that supports their EDI interface.
- Provide automated post-order responses using VICKI.
- Provide the ability to test whether a given LSR would flowthru to the Qwest SOPs in a test environment for POTS and UNE-P POTS LSRs in the western region.

## SATE Supported Transactions and Products

The following 850/860 transactions and all responses associated with them are included in the current release of the EDI Stand-Alone Test Environment:

Pre-Order

- Address Validation (Numbered Addresses only)
- Appointment Scheduling
- Cancel TN/Appointment
- Connecting Facility Assignment
- Facility Availability (Convert POTS to Unbundled Loop, POTS Facility Availability)
- Meet Point Query
- Raw Loop Data Query

- Customer Service Record Query[2]
- Service Availability
- TN Reservation Query (with TNSR following)
- Loop Qualification Query

Order

- Centrex Plus
- Directory Listing Only
- Local Number Portability
- Loop with Number Portability (LNP only)
- POTS Resale
- Shared Loop
- Unbundled Loop
- UNE-P Centrex
- UNE-P POTS
- Unbundled Distribution Loop
- Unbundled Distribution Loop with NP

Post Order

- FOC
- Completion
- Reject
- Jeopardy
- Status Updates
- Non-Fatal

***Note:*** *Additional functionality can be agreed upon and added in later releases. Requests for* transaction*s not currently supported may be requested via CMP.*

## SATE Transaction Responses

In SATE, Pre-Order and Order transactions are created using Qwest provided data that when submitted to SATE, will return consistent responses. These responses will enable the SATE user to test the EDI mapping structure, as well as ensure that these responses can be successfully received and interpreted by the CLEC.

SATE's VICKI (Virtual Interconnect Center Knowledge Initiator) functionality will allow a CLEC to submit a Local Service Request (LSR) in the Stand Alone Test Environment (SATE) and receive specific expected responses. The set of responses produced from chronological system events is known as a "Path". The paths are listed in detail in the SATE VICKI Path document. In VICKI, automated responses available include FOCs, Status Updates, and Completions. If a desired path includes manually generated responses, such as a Jeopardy or Manual Reject, the response is still listed in this document, however, instead of a time delay, the phrase "Manually Generated" is shown. When a path ends in a manually generated response, the LSR will be included in a Qwest manual work queue to trigger the response to be sent to the CLEC.

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[2] FTP or e-mail requests will not be returned; the appropriate 855 response will be returned.

The automated replies from the Stand-Alone system will remain consistent over time. For example, a Raw Loop Data query for a given phone number will always give the same reply. The only case where this will not be true is on related scenarios and the data saved in them. For example, in the case of POTS Resale, an edit is done on whether a phone number has been reserved. A CLEC may therefore have an LSR error if the TN is not reserved, but the same LSR would go through if a phone number had been reserved. Another case where saved data will be used, making replies differ, is LSRs with Supplementals.

Unless the data document indicates otherwise, the system generated error codes and messages returned in SATE will exactly mirror the Production environment. As some responses in SATE and production are manually generated, the verbiage used in SATE on outbound response may not match what a CLEC may receive in production, nor represent the actual message/data content expected from the result of the transaction or Order.

SATE does not mimic the flow-through process or the timing of responses in production. Pre-Order responses and BPL errors are system-generated in real-time from SATE.

Where CSRs are requested via e-mail or FTP, the appropriate 855 response will be generated. The CSR will not be sent via e-mail or FTP.

CLECs may escalate a technical inquiry or a Progression response request to their assigned Implementation Project Manager. If technical problems are experienced in SATE, Progression users should contact their assigned TSE; Regression users should send an e-mail to:
sateedi@qwest.com

## SATE Multi-Release Support Schedule

At a minimum, the SATE environment will support any releases that are currently available for implementation in IMA. Beginning with release 9.0, new releases of IMA are planned for release on the IMA EDI Stand-Alone Test Environment approximately thirty calendar days prior to their release into production unless that release is deemed to be in ‘red testing status’. Red testing status indicates that the IMA release’s system testing effort has discovered significant issues that place the release in jeopardy. There will be no mid-cycle data conversion in SATE. The sunset dates for SATE will be the same as for the IMA Production releases.

## SATE Functionality – Assumptions

Interface

- The IMA EDI Stand-Alone Test Environment will run EDI only. No IMA GUI access is provided.

Availability - Days/Hours of Operation

- The SATE system will be available from 8 a.m. to 6 P.M. Mountain Time (MT) on Monday through Friday. Limited after-hours technical support, as available, may be provided upon request.

Usage Limits

- Qwest reserves the right to limit the number of transactions or Orders submitted by any single SATE user where such usage levels could jeopardize or diminish the usefulness of SATE to other users; SATE is not to be utilized for load testing.

Transaction and Order Data Retention

- The IMA database designed to hold appointments, LSRs, and other data specific to the transactions being performed via the EDI submittals will be completely cleared of all SATE-user-submitted data 30 days after the transactions are submitted. This will impact transactions and Orders that depend on related Transaction Numbers or Purchase Order Numbers (PONs) being in the system, such as SUPs, etc. Regression SATE users must anticipate this and plan their testing accordingly. The Implementation Project Manager will assist Progression users of SATE in test scheduling.

## Adding Additional Data to SATE

The SATE Data Document contains data available in the SATE system for CLEC use in testing their IMA EDI Interface. The SATE Data Document is updated for new releases any time a product is added or a system change occurs that impacts the Data Document. In the course of testing their interface, a CLEC may need additional data added to the SATE system to support their testing. If such additional data is needed, the data request process is used.

The process for adding additional data to SATE is:

- With a new data request, the CLEC completes a Data Request Form and will be asked to provide options for times they are available to meet for an initial and second meeting. The initial meeting can occur as early as the day after Qwest receives the data request. The second meeting will be three days after the initial meeting at the earliest. Both meetings will be scheduled based upon the CLEC's availability.
- The form can be obtained from the Implementation Team or found on the Qwest IMA EDI web site:
  http://www.qwest.com/wholesale/ima/edi/document.html
- When completing the form, the CLEC should provide a detailed explanation of the data request. This explanation needs to include comprehensive detail that will allow Qwest to

clearly understand the request. The CLEC then submits the completed Data Request Form to sateedi@qwest.com.

- When Qwest receives the data request, Qwest will send an e-mail message to the CLEC stating that the request was received and accepting a time for the initial meeting.
- During the initial meeting, Qwest will review the data request with the CLEC to ensure a common understanding of the request.
- Within two business days of the initial meeting, Qwest will either send approval of the request or schedule a second meeting with the CLEC.
- During the second meeting, Qwest will work with the CLEC to resolve any open questions that Qwest has regarding the data request.
- When the intent of the request is understood, the Qwest SATE Data Document coordinator will e-mail the data to be added to SATE to the requesting CLEC. This e-mail will request concurrence from the CLEC that the data included in the e-mail will satisfy the request. The day following the second meeting Qwest will provide approval of the request, assuming there are no open issues being researched by the CLEC. With the receipt of a concurring e-mail from the CLEC, the request is considered approved.
- Within ten business days of the approval, Qwest will load the approved data into SATE.
- When the data is loaded, the SATE Data Coordinator will send an e-mail to the requestor stating that the data has been loaded into SATE and it is available for testing use.
- If multiple CLECs request similar data, the Data Document will be updated.

## Interoperability Environment Overview

The IMA interoperability environment is a production copy of IMA.

Order data in the Interoperability environment is validated against the Production OSS information and must pass all BPL edits as if it was to be provisioned. However, the order is not passed to the OSS for provisioning during the Progression Testing phase and order scenario submissions do not leave the Interoperability environment.

For the scenario to be successfully processed in the Interoperability environment, the CLEC must supply valid account data. This means that the account information must exist within the Qwest systems and be valid in terms of its account owner (Qwest or CLEC), account number, status, end user, related content and format.

In the IMA Interoperability environment, Progression Testing involves the CLECs using their own account data for creating scenarios on Qwest-provided templates, obtaining approval on these scenario templates, and then submitting a minimum set of test scenarios for all transactions they wish to perform in Production.

The accounts used by a CLEC in the Progression Testing Phase will be left intact in Qwest production systems. Orders that mimic an eventual production order may thus be used in the Interoperability environment for the Progression Testing Phase. Once successfully Progression tested, these may then be submitted in Controlled Production and provisioned.

For FBDL, the scenario test bed data is provided.

## Supported Transactions – Interoperability

All transactions supported by the production IMA release are supported in the Interoperability environment.

## Multi-Release Support Schedule – IMA Interoperability

The IMA Interoperability environment will support all releases supported in Production. New releases of IMA are planned for release in the Interoperability environment thirty calendar days prior to their release in Production unless that release is deemed to be in 'red testing status'. Red testing status indicates that the IMA release's system testing effort has discovered significant issues that place the release in jeopardy. There will be no mid-cycle data conversion in the Interoperability environment.

## Transaction Responses – Interoperability

Pre-Order and Order data in the IMA Interoperability environment is validated against Qwest OSS information and system-generated error messages are returned from the BPL edits. Therefore the system-generated responses returned match those expected in production. IMA Interoperability Post-Order responses are manually generated and may include Rejects, FOCs, Jeopardies, Status Updates, and Completions. Verbiage on these outbound manually-generated Post-Order responses created by a tester in Interoperability may not exactly match the message generated by the ISC representative on a similar production transaction.

IMA FBDL responses are system generated and based on the pre-defined scenario test bed data that is submitted for testing. For FBDL, there are no 860 transactions nor Completion responses, only 855 transaction responses. FBDL status and error codes are system generated (see IMA FBDL EDI Transaction Processing in Technical section of this document).

In Interoperability, the timing of responses is not meant to mirror production.

## Progression Testing

The minimum set of required Scenarios is dependent on the transactions (including Pre-Order, Order, and Post-Order) that the CLEC intends to utilize in production via EDI. Guidance for the minimum number and type of Scenarios is reflected in the following requirements:

### IMA Pre-Order Transactions - Progression Testing minimum requirements:

1. The CLEC must test every Pre-Order transaction that will be implemented in Production.
2. For every transaction that will be implemented in Production, the CLEC must test every type of query available for that transaction.
3. For every query that will be implemented in Production, the CLEC must test every query response type.

### IMA LSR Order Transaction - Progression Testing minimum requirements:

1. The CLEC must test and receive an 850 FOC and 865 Completion for every product that will be implemented in Production.
2. The CLEC must test and receive an 860 FOC on a Supplement for every product that will be implemented in Production.
3. The CLEC must test and receive an FOC (850 or 860) for every Activity Type that will be implemented in Production
4. The CLEC must test every response type in the 'Response' columns on the Scenario Summary. In addition, at least one 865 Jeopardy must be tested as the next response *after* an 850 FOC.
5. The CLEC must have at least one test case generating a System-Reject and at least one test case generating an ISC-Reject and both test cases must have an equivalent test case that corrects the error.
6. The CLEC must test every supplemental type (1=Cancel Order, 2=Change Due Date, 3=Other Change) with at least one being tested *after* the original order passes the BPL, but *before* it receives an FOC.

**NOTE -** Once the CLEC has completed their initial Progression Testing, implementation of additional Products need only meet requirements1, 2, and 3 above, while additional Activity Types need only meet requirement 3 above.

The IMA Order Scenario submittals used for the Progression Testing Phase are not sent to the legacy systems to affect the existing production data, and are not provisioned. Thus the accounts used by a CLEC in the Interoperability environment will be left intact in Qwest production systems.

Test data accounts are provided by Qwest and submitted by the CLEC in SATE; therefore no production accounts are involved.

### IMA FBDL Order Transaction - Progression Testing minimum requirements:

1. The CLEC must test every Listing product type (Straight-Line, SLU, or Complex) that will be implemented in Production.
2. For every Listing product type that will be implemented, the CLEC must test every activity type that will be implemented in Production - New (C), Change (C), Delete (D), CLEC-to-CLEC conversion (W), and Outside Move (T).

For FBDL, Qwest provides the account and test data to the CLEC for Listings testing. These Listing product types may include Non-Complex – "Straight Line" and "Straight Line Under" (SLU) or Complex "Caption" listings indicating multiple sub-level details (indentions). The CLEC will select and use the Qwest-provided data to correctly populate the Progression Scenarios for submittal to the FBDL Interoperability testing environment.

### Scenario Summary Creation - Progression

To prepare for IMA Progression Testing, the CLEC sends Qwest a Scenario Summary for review. The Scenario Summary should represent the required Scenarios to be tested (Pre-Order transactions, product Order/Activity Types, Post-Order transactions) along with the required responses for each test Scenario. For SATE and FBDL in the Interoperability environment, the scenarios on the summary must utilize the test bed scenario number from the data document to enable Qwest to verify these against the source document. If the CLEC is testing in both the Interoperability and SATE environments, the CLEC must indicate in which environment the scenario will be tested.

### Scenario Creation - Progression

In the Interoperability environment, the populated Scenario Templates must reflect the actual data (correctly entered on the template) that the CLEC intends to send on the individual EDI submittals. The cover page of each Scenario Template should explain the intent and identify any specific data that is incorporated in that scenario to generate the error/response being tested. The Scenario review will be based in part upon what is indicated on the cover page, so clarity and accuracy are important. For example, if the Scenario is meant to test an error condition, the item(s) causing the error should be explained on the Scenario cover page. (See Scenario Development and Review Cycle – this document)

For FBDL testing, Qwest provides test bed data to the CLEC. The CLEC will use the data to populate the Scenario template. The cover page of each Scenario should explain the intent of that request. The Scenario review will be based in part upon what is indicated on this page, so clarity and accuracy are important.

## Progression Testing Entrance Criteria

To begin Progression Testing, each of the following criteria must be met:

- Successful completion of Firewall and IA-to-IA testing in the chosen (Interoperability and/or SATE) environment
- Approval of the negotiated Project Plan
- Completion and approval of a Scenario Summary
- Completion and approval of agreed upon Progression Testing Scenario Templates (for Interoperability Environment)
- Resource availability of LSS (for FBDL Testing).

### Progression Testing Process

The Progression Testing process is executed as follows:

1. The Qwest test environments will be available for testing during posted times and TSEs will be available on testing days as scheduled and agreed.
2. The CLEC submits test transactions, according to the approved scenario summary. For testing in the interoperability environment, the scenarios should be approved by the BA prior to submission.
3. Qwest generates the expected test 997, 855, and 865 responses based on the Scenario Summary or in the SATE input remarks.
4. A call will be scheduled (typically on a daily basis) to provide an opportunity for CLEC and Qwest testing representatives to interact and discuss the testing results.

### Progression Testing Exit Criteria

For **IMA requests excluding FBDL**, Progression Testing will be considered complete when the CLEC has met each of the following criteria:

- Completion of all agreed upon test Scenarios
- Demonstrated ability of the CLEC to send valid 850 and 860 transactions.
- Confirmation of the ability of the CLEC to receive from Qwest the 997, 855 (BPL Fatal, ISC Fatal, ISC Non-Fatal, and FOC) and 865 (Fatal, Non-Fatal, FOC, Jeopardy, and Completion) and appropriate pre-order response transactions as identified in the Scenario Summary.

- Demonstrated ability of the CLEC to generate 997 functional acknowledgements in response to Qwest 855 and 865 transactions.
- Confirmation of the ability of the CLEC to notify user of responses generated by Qwest, to indicate whether the submitted transaction or product Order was successfully processed and notify the user of the Qwest-generated error message, as appropriate.
- Confirmation of the ability of the CLEC to detect processing failure of transactions within any component of the CLEC EDI environment
- Submittal of a list of CLEC points-of-contact for after-hours and emergency issues.

  (See 'CLEC Roles and Responsibilities' in the Production section).

  **NOTE: If CLEC resources are not able to be contacted when EDI production problems arise, Qwest reserves the right to suspend the CLEC trading partner relationship until such contact can be made.**

  **CLEC systems must be up to receive Qwest transmissions/responses during Qwest IMA EDI posted hours of operation in order to prevent backlog issues within Qwest systems.**

For **IMA FBDL requests**, Progression Testing in the Interoperability environment will be considered complete when the CLEC has met each of the following criteria:

- Completion of all agreed upon test scenarios.
- Demonstrated ability of the CLEC to send valid 850 EDI transactions.
- Confirmation of the ability of the CLEC to receive from Qwest 997 functional acknowledgements and 855 response transactions as identified in the Scenario Summary.
- Demonstrated ability of the CLEC to generate 997 functional acknowledgements in response to a Qwest 855 transaction.
- Confirmation of the ability of the CLEC to notify user of responses generated by Qwest, to indicate whether the submitted transaction was successfully processed and notify the user of the Qwest-generated error message, as appropriate.
- Confirmation of the ability of the CLEC to detect transaction processing failure within any component of the CLEC EDI environment
- Submittal of a list of CLEC points-of-contact for after-hours and emergency issues (Also see CLEC Roles and Responsibilities section).

  **NOTE: If CLEC resources are not able to be contacted when EDI production problems arise, Qwest reserves the right to suspend the trading partner relationship until such contact can be made.**

  **CLEC systems must be up to receive Qwest transmissions/responses during Qwest IMA EDI posted hours of operation in order to prevent backlog issues within Qwest systems.**

## *Controlled Production Phase*

### Definition

Controlled Production is permitted after the successful completion of the Progression Testing Phase. The Controlled Production process is designed to validate the ability of the CLEC to transmit EDI data that meets X12 standards and complies with Qwest business rules. Controlled Production consists of the submission of requests to the Qwest production environment for provisioning as production Orders. Qwest and the CLEC use Controlled Production results to determine operational readiness for full Production turn-up.

### Scenario Creation – Controlled Production

Controlled Production scenarios require the use of 'live' account and valid Order data. When possible, Orders with extended due dates can be used for Controlled Production. This provides flexibility in case problems arise while entering the Order. If, due to system problems, an Order could not be sent via EDI in time to make the due date, the Order would need to be sent via an alternate process and a new Order Scenario developed. Extended due dates may allow this re-work to be avoided.

In the Controlled Production Phase, the CLEC must supply valid account data and populate the Scenario Templates correctly in order for the submitted EDI requests to be successfully processed and become Qwest Service Orders. This means that the account information must exist within the Qwest Production systems and be valid in terms of the account owner (Qwest or CLEC), account number, end user, account status, and related content and format.

IMA Controlled Production Scenarios will be provisioned as indicated on the Scenario transaction.

For Controlled Production, the Scenario Summary and individual Scenario Templates will be reviewed and approved before the transactions are actually submitted via EDI. Scenarios can be utilized in the Progression Testing Phase and then submitted (and actually provisioned) in Controlled Production. The Scenario Summary should reflect the scenarios that the CLEC intends to submit to Qwest via EDI for provisioning.

### Controlled Production Testing

#### IMA Pre-Order Transactions - Controlled Production Minimum Requirements:

1. The CLEC must test every Pre-Order transaction that will be implemented in Production.
2. For every transaction that will be implemented in Production, the CLEC must test every type of transaction query.

3. For every query that will be implemented in Production, the CLEC must test every type of query response.

## IMA Orders - Controlled Production Minimum Requirements (excluding FBDL):

1. The CLEC must test every product that will be implemented in Production.

2. For every product that will be implemented, the CLEC must test every activity type that will be implemented in Production.

3. The CLEC must get an 855FOC/865FOC response for each applicable test case, and at least 1 Completion across all test cases. No rejects or jeopardy response types are expected.

4. The CLEC must test at least one Supplemental Type for each Product.

## IMA FBDL Orders - Controlled Production Minimum Requirements

1. The CLEC must test every Listing product type (Straight Line, SLU, Caption) that will be implemented in Production.

2. For every Listing product type that will be implemented, the CLEC must test every activity type that will be implemented in Production. There are 5 Activity Types available (N, C, D, T and W) for FBDL. If the CLEC is implementing all listing types (Straight Line, SLU and Captions) and will be using all 5 Activity Types, there would be a minimum of 15 Scenarios required. Additional Scenarios are always encouraged to ensure a broader check of provisioning processes and systems.

3. The CLEC must receive and successfully process an 855 Confirmation/Error response for each applicable Scenario. Errors received must be corrected until a positive 855 response is received.

4. The CLEC must achieve an acceptable flow-through rate on FBDL Controlled Production transactions with a successful update to the LSS database. Upon completion of FBDL Controlled Production, there will be a review of the results and a go/no go decision will be made. If the desired results are not met, the Implementation team has the right to require a full Progression testing phase followed by a new Controlled Production phase.

For FBDL Controlled Production Scenario transactions to be successfully processed, the CLEC must populate the Scenario fields according to the Developer Worksheet requirements and supply valid account data. This means that the account information must be valid in terms of its listing account, including the account number, end user listing information, and related content and format.

### Entrance Criteria – Controlled Production

To begin Controlled Production, each of the following criteria must be met:

- Progression Testing Phase has been successfully completed
- A Controlled Production Scenario Summary is approved
- At least one Controlled Production Scenario Template is approved
- Tested TPRs are loaded into Qwest Production environment
- Firewall rules are pushed to Production

### Process – Controlled Production

The Controlled Production process will be as follows:

1. Qwest and the CLEC agree on a set time for testing.
2. The Production environment will be available for testing during this daily period.
3. After the Scenarios have been approved by Qwest as represented on the Scenario Summary, the CLEC sends these test Scenario 850 (and 860 for IMA) transactions electronically to Qwest.
4. Qwest monitors the transaction flow for submitted transactions during the testing period, including functional acknowledgements from the CLEC system.
5. A call will be scheduled (typically on a daily basis) to provide an opportunity for CLEC and Qwest testing representatives to interact and discuss the testing results.

### Exit Criteria – Controlled Production

For **IMA requests excluding FBDL,** Controlled Production will be considered complete when the CLEC has met each of the following criteria:

- Completion of all agreed upon scenarios as identified in Controlled Production Scenario Summary.
- Demonstrated ability of the CLEC to send valid 850 and 860 transactions/ (as applicable).
- Confirmation of the CLEC’s ability to receive from Qwest the 997, 855 (FOC), and 865 (FOC and Completion) and pre-order responses as identified in Controlled Production Scenario Summary.

- Demonstrated ability of the CLEC to generate 997 functional acknowledgements in response to Qwest 855 and 865 responses.
- Confirmation of the ability of the CLEC to notify its users of responses generated by Qwest, to indicate whether the submitted transaction/product Orders were successfully processed.
- Confirmation of the ability of the CLEC to detect transactions processing failure within any component of the CLEC EDI environment.
- Updating of the list of CLEC points-of-contact for after-hours and emergency issues (Also see CLEC Roles and Responsibilities section).

  **NOTE: If CLEC resources are not able to be contacted when EDI production problems arise, Qwest reserves the right to suspend the trading partner relationship until such contact can be made. CLEC systems must be up to receive Qwest transmissions/responses during Qwest IMA/EDI hours of operation to prevent backlog issues in Qwest systems.**

The Controlled Production exit criteria listed above must be satisfied for a transaction type before it can be utilized by the CLEC in the Qwest production environment. When meeting the above requirements for Controlled Production, any given product/activity type can be phased into production, as CLEC client data becomes available to be provisioned. A CLEC can move into IMA Production with one or more products when any of the products being implemented for that release receives an 865 Completion and at least one product being implemented for that release has also received an 865 FOC for a Supplemental transaction.

For **IMA FBDL requests,** Controlled Production will be considered complete when the CLEC has met each of the following criteria:

- Completion of all agreed upon Controlled Production scenarios as identified in Controlled Production Scenario Summary.
- Demonstrated ability of the CLEC to send valid 850 transactions.
- Confirmation of the CLEC’s ability to receive 997 and 855 transactions as identified in Controlled Production Scenario Summary.
- Demonstrated ability of the CLEC to generate 997 transactions in response to Qwest 855 transactions.
- Confirmation of the ability of the CLEC to notify its users of responses generated by Qwest, to indicate whether the submitted transaction was successfully processed.
- Confirmation of the ability of the CLEC to detect transaction processing failure within any component of the CLEC EDI environment.
- Updating of the list of CLEC points-of-contact for after-hours and emergency issues (Also see CLEC Roles and Responsibilities section).

For IMA FBDL, a CLEC implementing one or more Listing Types can move from Controlled Production into production when any Listing type has been successfully processed by the LSS.

# *Production*

## Phased Support Procedures/Contacts

EDI support to IMA CLECs who have recently implemented production trading will be provided as follows:

| **IMA Timeframe** | **Technical Support** | **Contact Information** |
|---|---|---|
| After production 'turn-up' - First thirty days | EDI Implementation Project Manager | Phone/Pager will be provided |
| After production 'turn-up' – After First thirty days | Qwest IT Wholesale Help Desk | 1-888-796-9102 |
| After Migration - First Five Days | EDI Implementation Project Manager | Phone/Pager will be provided |
| After Migration – After First Five Days | Qwest IT Wholesale Help Desk | 1-888-796-9102 |

### Qwest IT Wholesale Systems Help Desk Roles and Responsibilities

Qwest IT Wholesale Systems Help Desk personnel will provide information and resolution for IMA EDI transaction processing problems that are caused by failure of Qwest EDI environment hardware or software components. This resolution may be in the form of direct action or through escalation to the appropriate individuals within Qwest.

The Wholesale Systems Help Desk will be able to immediately investigate any transactions that were sent within the past 14 days or less. Transactions that are older than 14 days will require escalation and will take longer to investigate. If the Wholesale Systems Help Desk can not resolve the issue, they will escalate to Tier 2, Production SYADS; or Tier 3, IMA EDI Implementation Team, as appropriate. The escalation team will then resolve and close the issue directly with the person that reported the issue.

### Limitations for Qwest EDI Support

The Qwest IT Wholesale Help Desk is not designed to provide assistance with transaction failure caused wholly or in part by failure of any component of the CLEC EDI processing environment.

Questions regarding Order content, Order writing procedures or transaction status should be referred to the Qwest Interconnect Service Center Help Desk or the CLEC Qwest Service Manager.

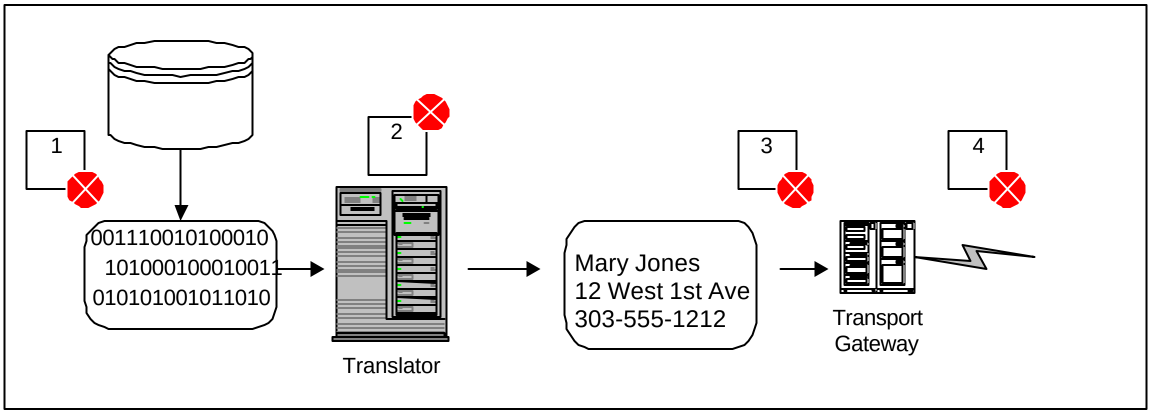
The CLEC is also responsible for maintaining the following information for their customer accounts:

Name, address and telephone number
Circuit ID information provided by Qwest at the time the Unbundled Loop was provisioned
Port assignment information

## CLEC Roles and Responsibilities

Before contacting Qwest support, the CLEC should perform a thorough analysis of the components within their EDI environment (see Diagram below) to insure that transaction failure is not a result of anomalies within their system. The following EDI environment items should be verified before contacting Qwest:

1) Flat file generation
2) Successful translation
3) Successful hand-off to transport
4) Successful transport to Qwest



The detailed steps for this verification are as follows:

1) Check the PON in the <*CLEC internal OSS system*>
    - Was the 850 sent successfully?
    - Was a 997 received for all messages sent to Qwest?
    - What is the error text in any return messages from Qwest?
2) Make sure the IA connection is operating properly.
3) Compare the response times to the limits set in the Interconnect Agreement.
4) Review all associated messages for the PON in Question.

5) Have the following information already gathered before contacting Qwest Help Desk:
    - TXNUM or PON #/Ver# and CCNA
    - Date and approximate time of transmission
    - Document/transaction type (e.g. 850CSRQ, 860SUPP, etc.)
    - Description of problem
    - List of all associated transactions/responses
    - <CLEC> Support Points of Contact (See Table 2)

Table 2 – CLEC Points of Contact – for Emergency, Weekends, Holidays, and After-Hours

| **Item** | **POC 1** | **POC 2** | **POC 3** |
|---|---|---|---|
| **Name** | | | |
| **Title** | | | |
| **Street** | | | |
| **City/ST/Zip** | | | |
| **Work Phone** | | | |
| **Cell Phone &/or Pager** | | | |
| **E-mail Address** | | | |

Before contacting the Qwest IT Wholesale Systems Help Desk, the CLEC should:

- Determine that the problem is not internal to the CLEC's systems/data
- Have the above information readily available to be communicated to Qwest

The CLEC should then contact the Qwest IT Wholesale Systems Help Desk for production support during the posted hours of operation:

| | |
|---|---|
| Wholesale Systems Help Desk | 1-888-796-9102 - option 3 |

Further information is provided in the Qwest IMA EDI Troubleshooting Guide provided from the Qwest Implementation Project Manager during the Progression Testing phase.

## Multi-Release Support

### Release Lifecycles

The Qwest EDI interface architecture provides the capability for multiple releases to be in production at a given time. This design allows a CLEC to continue production use of a particular release while performing the development necessary to migrate to a more current release. It is important that the CLEC be aware of the retirement date for the current release they are implementing, or currently using, and be prepared to migrate to a subsequent release as appropriate. EDI releases have predetermined sunset timeframes, after which point they will be unavailable for use. It is the CLEC's responsibility to be aware of these timeframes and plan accordingly. Release timeframes are updated and posted to the CMP website located at:

http://www.qwest.com/wholesale/cmp/osscalendar.html

Note: Use of the GUI interface, which is always the most current release, concurrently with a prior version of EDI may not be viable due to differences between the two releases.

## Converting to a New Release

Qwest supports a multi-release strategy for its EDI Interface. Information regarding the release schedule is posted on Qwest's Wholesale website. Specific EDI related dates for each release are issued five (5) weeks prior to the date the release is to be installed and implemented in Production by Qwest in the new release's Recertification memo.

Qwest currently uses the following guidelines regarding the availability and retirement of releases:

- Each new release is scheduled to be available in the Interoperability and SATE environment thirty (30) days prior to its implementation in the production environment.

- IMA EDI releases are supported six (6) months after the next release is implemented.

- Release guidelines in the recertification memo are provided to the CLECs five (5) weeks prior to a release. These include the dates by which a CLEC must begin Progression testing for a given release and when transactions on that release must be in Production by the CLEC. If these dates are not met by the CLEC, the CLEC must implement the next release instead.

These guidelines are designed to ensure the CLEC's successful implementation or migration and to minimize the risk associated with development and deployment of new software. Variations to this schedule may become necessary and any such changes will likewise be published to CLECs via the normal CMP communication channels.

## Recertification Requirements

Recertification is the process by which CLECs demonstrate the ability to correctly generate and accept transactions that were updated for the new release. For each release, Qwest will determine which transactions require the CLEC to perform recertification testing. For a given release, it is possible that only some of the transactions will require recertification by the CLEC. That decision by Qwest will be based upon the following factors:

- Mapping changes
- Changes to Qwest business rules enforced by the system

If the changes to the release do not warrant it, recertification of a given transaction will not be required, but may be tested if desired by the CLEC. Transactions requiring recertification will be made known to the CLEC in the recertification notice, issued with the Disclosure Documents for the new release.

At the time a CLEC migrates to a new release, any transaction(s) that the CLEC does not yet have in production using a current IMA EDI version is considered to be a new implementation effort. These transactions must be implemented using all Phases of the implementation lifecycle as defined in this document. In some releases existing transactions are updated with significant additions that add business rules and/or large map changes (for example, the large CSR functionality that was included in Release 6.0). If the CLEC intends to use the new functionality, they will be required to perform a new product implementation of this transaction. This will entail Progression Testing and controlled production submittal of scenarios that reflect the new functionality. CLECs not intending to use the new functionality will be allowed to recertify existing functionality that is still available in the new release.

Please note that point releases (i.e. 8.01) do not require recertification.

To recertify a given transaction, the CLEC must perform the following minimum test requirements in the Interoperability or SATE environment:

### IMA Pre-Order Transactions - Recertification minimum requirements:

1. Every Pre-Order transaction listed in the Recertification Notice that will be migrated to the new release must be tested (including any related 860 transactions) and must receive a ‘Good’ or ‘Exact Match’ response.

2. Pre-Order transactions not listed in the Recertification Notice that will be migrated to the new release must still be tested to validate the Trading Partner Relationships (TPRs), but need not result in a successful response.

### IMA Order Transactions - Recertification minimum requirements:

1. Every Order transaction listed in the Recertification Notice that will be migrated to the new release must be tested (including a Supplemental transaction) and must receive a Confirmation response (an FOC for LSR orders and a DSRED for FBDL orders).

2. Order transactions not listed in the Recertification Notice that will be migrated to the new release must still be tested to validate the Trading Partner Relationships (TPRs), but need not result in a successful response.

**IMA Post-Order Transactions - Recertification minimum requirements:**

1. Every Post-Order transaction listed in the Recertification Notice that will be migrated to the new release must be tested (including separate Completion transactions for every LSR product) and must return an Acknowledgement response.

2. Post-Order transactions not listed in the Recertification Notice that will be migrated to the new release must still be tested to validate the Trading Partner Relationships (TPRs), but need not result in a successful response.

The CLEC will be expected to execute the required minimum test case scenarios in the Interoperability or SATE environment and provide Qwest the PONs of the successful Scenarios. This will allow Qwest to verify during its Migration Readiness Assessment that the CLEC is ready to move into production on the new release.

There are many factors that will influence the CLEC's migration plan. These influences and the process for migration are discussed further in the following section of this document.

## Migration Process

CLECs will be reminded in writing of their need to migrate to a new release prior to the next release being implemented. When ready to begin the migration, the following steps will be followed by the CLEC:

1. Contact the Qwest-assigned EDI Implementation Project Manager.
2. Attend an initial migration meeting call to discuss Recertification, migration strategy, and 'mid-cycle' data conversion.
3. Develop a migration Project Plan and mutually agree to assist in the scheduling of appropriate resources. This plan will acknowledge the 'blackout dates' during which resources and systems may be unavailable to the Recertification/migration project.
4. Complete a Scenario Summary that includes tests to comply with all minimum testing requirements for a new release.
5. Perform the Progression Testing Phase per the minimum testing requirements for those transactions that are to be migrated to the new release.

Note: The steps above (1-5) are also applicable for FBDL when new map changes are introduced.

For migration, the CLEC will follow the same process as an initial implementation except that Controlled Production is exempted on any EDI transaction that successfully completed Controlled Production testing in a prior release. Any activity types for a given product not successfully tested in Controlled Production in a prior release will not be migrated under this exemption.

## Migration Exit Criteria

For **IMA requests excluding FBDL,** Migration will be considered complete when the CLEC has met each of the following criteria:

- Completion of all agreed upon Migration/Recertification scenarios as identified in Migration Scenario Summary.
- Demonstrated ability of the CLEC to send valid 850 and 860 transactions (as applicable).
- Confirmation of the CLEC's ability to receive from Qwest the 997 and 855 (BPL Fatal, ISC Fatal, ISC Non-Fatal, and FOC), 865 (Fatal, Non-Fatal, FOC, Jeopardy, and Completion), and appropriate pre-order response transactions as identified in the approved Scenario Summary.
- Demonstrated ability of the CLEC to generate 997 functional acknowledgements in response to Qwest 855 and 865 transaction/product Order responses.
- Confirmation of the ability of the CLEC to notify its users of responses generated by Qwest, to indicate whether the submitted transaction/product Order was successfully processed.
- Confirmation of the ability of the CLEC to detect transaction processing failure within any component of the CLEC EDI environment.
- Verification that the list of CLEC points-of-contact for after-hours and emergency issues remains current.

## IMA Data Conversion

As part of the IMA migration process, Qwest provides 'mid-cycle' data conversion. With data conversion, any requests in the IMA database for the old release are converted to data compatible with the new release. Data conversion can occur together with the migration to the new release, or after the migration has occurred. However, Qwest has blackout dates when data conversion cannot be performed including the week before or after a new IMA release is deployed. If data conversion is not performed at the time the new release is placed into production, the CLEC will need to maintain the old release interface to be able to receive any responses generated from Qwest on the unconverted transactions/Orders. This approach by the CLEC will only work until Qwest no longer supports the older release.

## *Regression Testing*

For CLECs, Service Bureaus, and Third Party Software Vendors wishing to test EDI functionality without supervision or direct support, Qwest permits access to SATE for what is referred to as "regression" testing. Although SATE access and regression usage is permitted, Qwest provides no "certification" to Service Bureaus or Third-Party Software Vendors. The CLEC, Third-Party Software Vendor, or Service Bureau contacts the LIPM to express an interest in regression testing. The LIPM will assign an IPM (if no relationship to Qwest exists). Access to SATE for this purpose then requires the Initial Discussion, negotiated regression Usage Plan, Requirements Review, Circuit Installation/Configuration, and Firewall and IA-to-IA Testing requirements as described in prior sections of this guide (see Typical Implementation Timeline). Regression testing is primarily for those with 'no intent' toward meeting any Qwest entry or exit criteria within an Implementation process. This testing approach is represented on a Usage Plan that indicates the intended testing activities and timeline. Qwest personnel resources are not tasked to directly support regression SATE users.

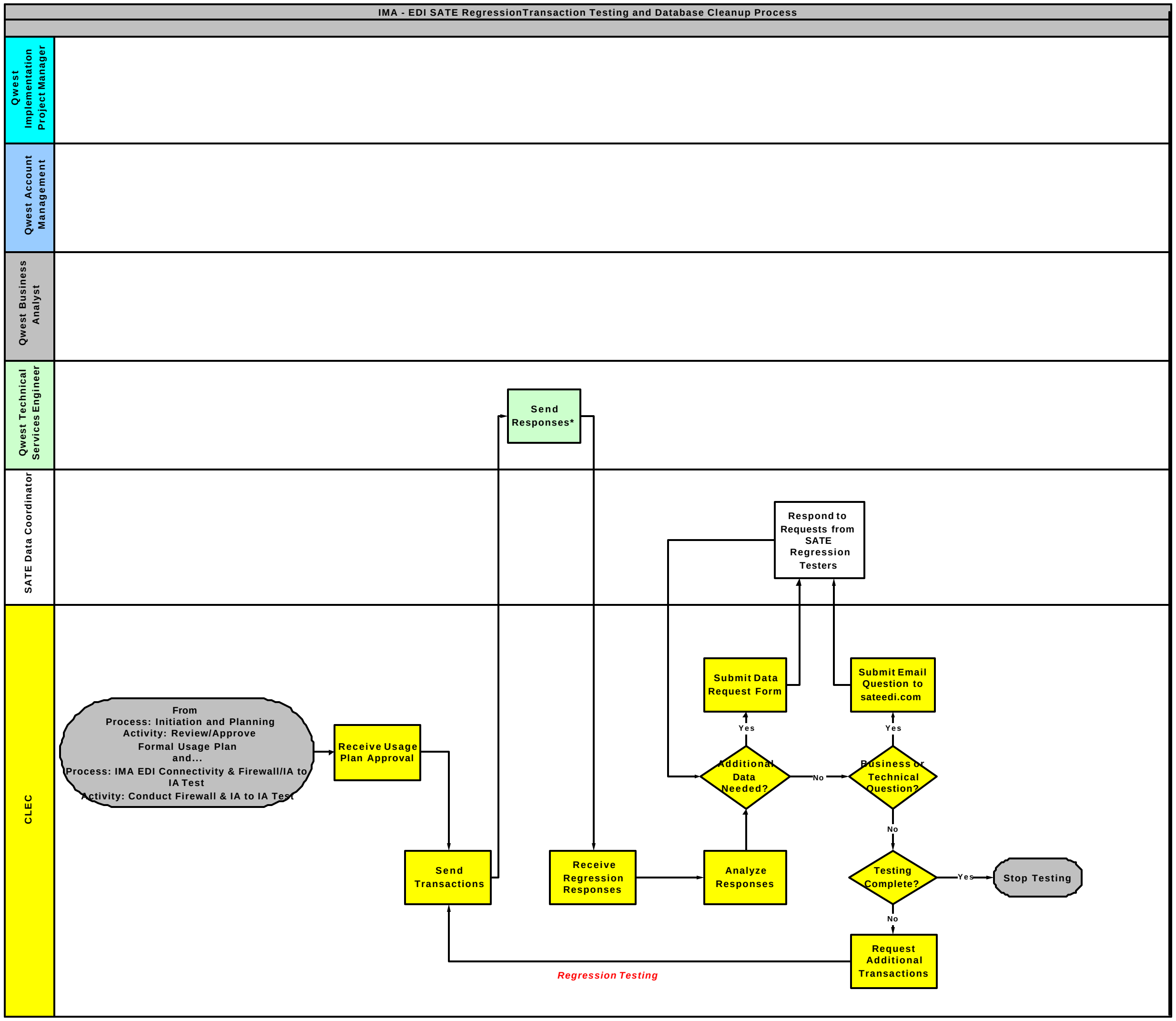
Determination of cause and effect relationships between submitted data and the results obtained is the responsibility of the SATE regression user. When a SATE regression user needs assistance, technical support will be provided via e-mail at {sateedi@Qwest.com}. A reply will be provided within five (5) business days of the technical inquiry. Qwest will also address and publish common SATE user questions in the Frequently Asked Questions document, available via the Web site.

The process for regression testing in the Stand-Alone Test Environment is as follows:

- The CLEC account and identity are established in SATE by Qwest.
- Qwest provides data documents that describe the test accounts and valid data
- The SATE user completes a Usage Plan indicating the EDI transactions that the CLEC plans to submit during testing. The Usage Plan template will be provided to the CLEC during the Regression Test Kickoff call. The Usage Plan is intended to provide Qwest an estimate of the number of each type of transaction that the CLEC intends to test in regression testing. When completing a usage plan, CLECs should remember that the SATE system is not designed to support CLEC volume or capacity testing.
- Qwest will evaluate the Usage Plan to ensure that the SATE system will be able to support the CLEC's proposed usage. All current usage plans will be evaluated together to ensure that the total planned usage by all CLECs can be supported. If the Usage Plan changes by an order of magnitude (i.e. if 100 planned transactions were to change to 1000 transactions) during regression testing, the regression user must resubmit the Usage Plan showing the increase to the IPM for approval.
- Upon Qwest's approval of the Usage Plan, the SATE user can begin submitting EDI transactions to the Stand Alone Test Environment. Responses to order transactions should be requested using SATE's VICKI functionality.
- The SATE user monitors their testing results.
- Technical support to regression SATE users will be provided via e-mail.

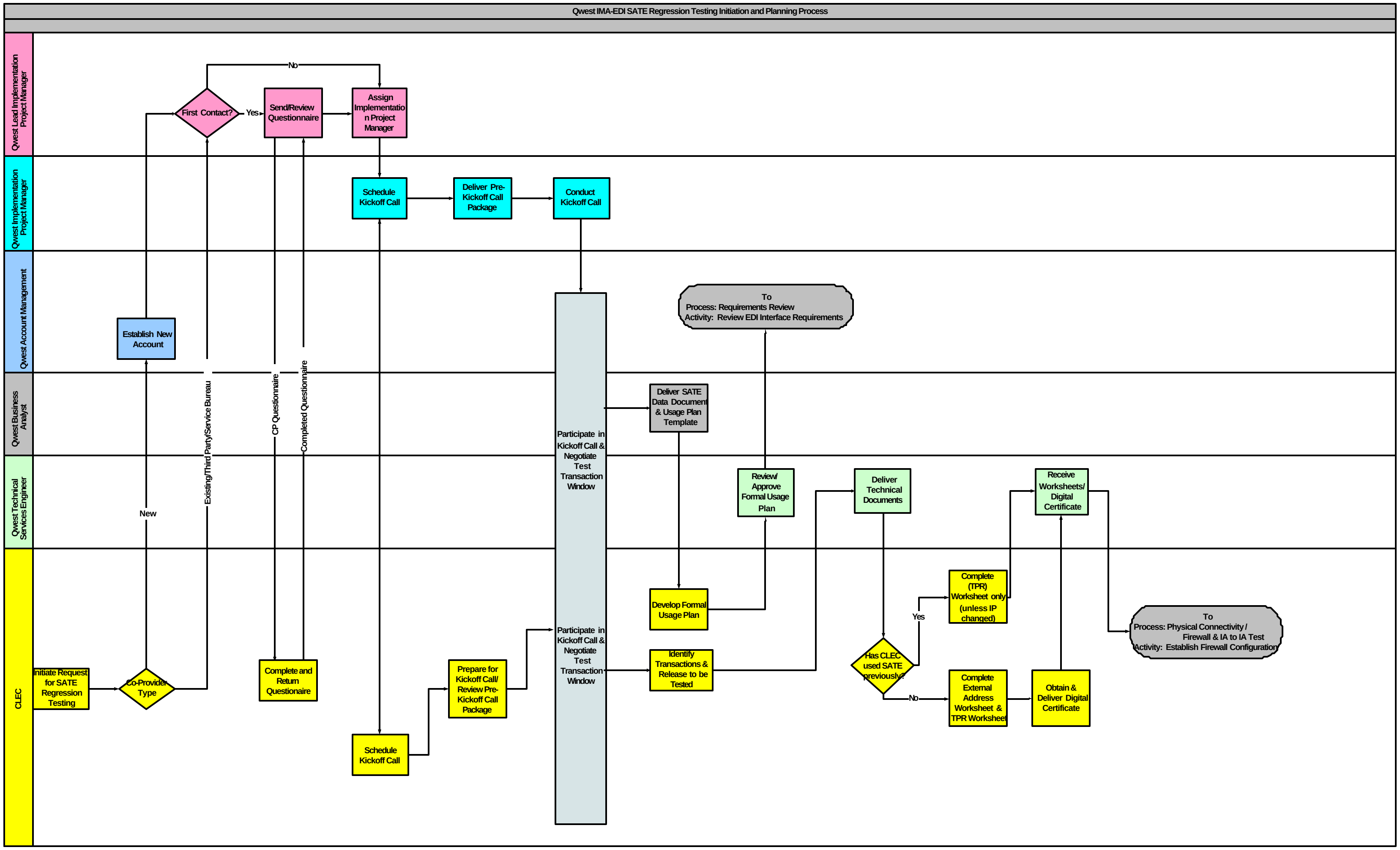
SATE regression users may escalate a technical inquiry request to their assigned Implementation Project Manager.

Appendix A depicts the comparison of IMA SATE Regression testing to Progression testing in SATE or the Interoperability environment.


IMA - EDI SATE RegressionTransaction Testing and Database Cleanup Process
Qwest Implementation Project Manager
Qwest Account Management
Qwest Business Analyst
Qwest Technical Services Engineer
SATE Data Coordinator
CLEC
Send Responses*
Respond to Requests from SATE Regression Testers
Submit Data Request Form
Submit Email Question to sateedi.com
From Process: Initiation and Planning Activity: Review/Approve Formal Usage Plan and... Process: IMA EDI Connectivity & Firewall/IA to IA Test Activity: Conduct Firewall & IA to IA Test
Receive Usage Plan Approval
Yes
Yes
Additional Data Needed?
No
Business or Technical Question?
No
Send Transactions
Receive Regression Responses
Analyze Responses
Testing Complete?
Yes
Stop Testing
No
Request Additional Transactions
Regression Testing

Note: Serial progression through the processes is not required as some tasks may be performed in parallel

* Order responses in SATE may be generated by the Technical Services Engineer or by VICKI, as appropriate.


Qwest IMA-EDI SATE Regression Testing Initiation and Planning Process
Qwest Lead Implementation Project Manager
Qwest Implementation Project Manager
Qwest Account Management
Qwest Business Analyst
Qwest Technical Services Engineer
CLEC
Initiate Request for SATE Regression Testing
Co-Provider Type
New
Existing/Third Party/Service Bureau
Establish New Account
First Contact?
Yes
No
Send/Review Questionnaire
Assign Implementation Project Manager
CP Questionnaire
Completed Questionnaire
Complete and Return Questionnaire
Schedule Kickoff Call
Deliver Pre-Kickoff Call Package
Conduct Kickoff Call
Schedule Kickoff Call
Prepare for Kickoff Call/ Review Pre-Kickoff Call Package
Participate in Kickoff Call & Negotiate Test Transaction Window
Participate in Kickoff Call & Negotiate Test Transaction Window
Deliver SATE Data Document & Usage Plan Template
Develop Formal Usage Plan
Review/ Approve Formal Usage Plan
To Process: Requirements Review Activity: Review EDI Interface Requirements
Identify Transactions & Release to be Tested
Deliver Technical Documents
Has CLEC used SATE previously?
Yes
No
Complete (TPR) Worksheet only (unless IP changed)
Complete External Address Worksheet & TPR Worksheet
Receive Worksheets/ Digital Certificate
Obtain & Deliver Digital Certificate
To Process: Physical Connectivity / Firewall & IA to IA Test Activity: Establish Firewall Configuration

Note: Serial progression through the processes is not required as some tasks may be performed in parallel

## *Change Management Process*

Qwest facilitates a regularly-scheduled forum in which Qwest and the CLECs communicate about Operational Support System (OSS) interface changes, release lifecycles, release notifications, and communication intervals. The Qwest CLEC Industry change management forum is referred to as the Change Management Process (CMP).

Participation in the CMP forum is structured as follows:

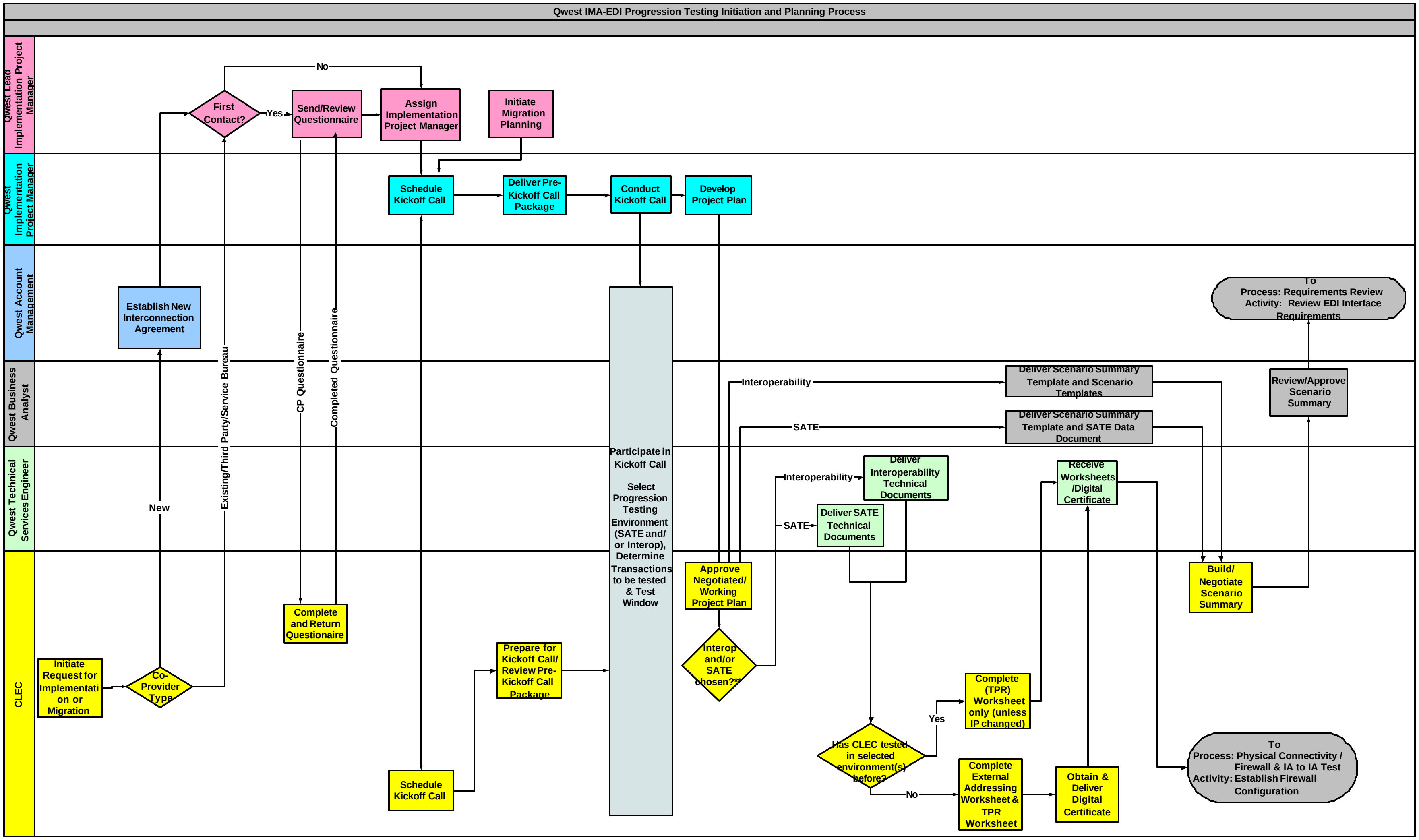
- Any CLEC, Third-Party Vendor, or Service Provider can participate in CMP.
- If a CLEC has an agreed upon IMA EDI Implementation Project Plan with Qwest, then the CLEC is considered an EDI user and may submit EDI Change Requests (CRs) and participate in the industry prioritization of IMA EDI CRs.
- If a CLEC does not have an agreed upon IMA EDI Implementation Project Plan with Qwest then the CLEC is not considered an EDI user and may not submit IMA EDI CRs, and can not participate in the industry prioritization of IMA EDI CRs.

Qwest encourages CLECs implementing an IMA or FBDL EDI interface to participate in the CMP process. Online registration can be found on the CMP website page. Release notifications, team meeting information, and change requests are also provided to all registered team members via e-mail. For further CMP information, please refer to the following website:

http://www.qwest.com/wholesale/cmp/index.html

During testing with CLECs, situations may occur that require Qwest to submit a Change Request internal to Qwest to fix an issue in Qwest's code or documentation. When an issue is discovered that substantially impacts a CLEC's ability to use a transaction in EDI, Qwest will notify all CLECs that are using this transaction via e-mail within three (3) business-days. Upon approval of project plan or regression Usage Plan, CLECs are added to the e-mail distribution. The IPM will also request e-mail addresses for the appropriate recipients of this notification. This notification will include a description of the problem and, if known, a potential fix date. If a fix date is not known, Qwest will update all impacted CLECs with the fix date when known. CLECs intending to implement new transactions will be informed of any known issues for that transaction during the Kickoff call.

If the SATE, the interoperability environment, or a transaction of either environment becomes unavailable, Qwest will send an e-mail notification to all impacted CLECs within four (4) business hours. This e-mail will contain a description of the impacted environment or transaction and when known an estimated fix time. A second e-mail will be distributed informing the CLECs when the environment or transaction becomes available for testing.


Qwest IMA-EDI Progression Testing Initiation and Planning Process

Qwest Lead Implementation Project Manager
Qwest Implementation Project Manager
Qwest Account Management
Qwest Business Analyst
Qwest Technical Services Engineer
CLEC
Initiate Request for Implementation or Migration
Co-Provider Type
New
Establish New Interconnection Agreement
Existing/Third Party/Service Bureau
First Contact?
Yes
No
Send/Review Questionnaire
CP Questionnaire
Complete and Return Questionaire
Completed Questionnaire
Assign Implementation Project Manager
Initiate Migration Planning
Schedule Kickoff Call
Deliver Pre-Kickoff Call Package
Schedule Kickoff Call
Prepare for Kickoff Call/ Review Pre-Kickoff Call Package
Conduct Kickoff Call
Participate in Kickoff Call
Select Progression Testing Environment (SATE and/ or Interop), Determine Transactions to be tested & Test Window
Develop Project Plan
Approve Negotiated/ Working Project Plan
Interop and/or SATE chosen?**
Interoperability
SATE
Deliver Scenario Summary Template and Scenario Templates
Deliver Scenario Summary Template and SATE Data Document
Deliver Interoperability Technical Documents
Deliver SATE Technical Documents
Has CLEC tested in selected environment(s) before?
Yes
No
Complete (TPR) Worksheet only (unless IP changed)
Complete External Addressing Worksheet & TPR Worksheet
Obtain & Deliver Digital Certificate
Receive Worksheets /Digital Certificate
Build/ Negotiate Scenario Summary
Review/Approve Scenario Summary
To Process: Requirements Review Activity: Review EDI Interface Requirements
To Process: Physical Connectivity / Firewall & IA to IA Test Activity: Establish Firewall Configuration

Note: Serial progression through the processes is not required as some tasks may be performed in parallel

**If the CLEC chooses to complete progression test simultaneously in both Interoperability and SATE, the CLEC must follow activities along the paths for both environments.

# 3 TECHNICAL INFORMATION

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The technical information section of this document is organized in the same sequence as the Disclosure Documents (distributed with each release) according to the following outline:

IMA EDI Transaction Flow – Normal/Exception/Supplemental
FBDL EDI Transaction Flow – Normal/Exception/Supplemental

Trading Partner Access Information
    Overview – Functional Group Envelope – Routing Information
    ISA Table Information
    GS Table Information
    Mapping Example
Mapping Examples
Data Dictionary
Developer Worksheets

## *IMA EDI Transaction/Product Order Processing*

The IMA Order process is initiated by the submission of a request transaction to Qwest. The CLEC transmits the request using the EDI 850 transaction set (or 860 transaction set for a supplemental request). Qwest will translate and forward the data to the appropriate Qwest internal system. The request will activate one of the following responses from Qwest:

NOTE: The following responses DO NOT apply to FBDL.

- 855 FOC – This indicates that the 850 request was successfully received and has been posted to internal provisioning systems as an ‘order’ (one or many).

- 865 FOC – This indicates that the 860 supplemental request was received and the original request was changed (or cancelled). The 865 FOC indicates that the request has posted to internal provisioning systems as an ‘Order’ (one or many) or a change to an Order, or the internal service Order originally created has been cancelled.

- “System Generated” 855/865 FATAL – This response from Qwest indicates that the BPL detected an error in the inbound transaction and did not post the transaction to internal Qwest databases. The “system-generated” FATAL ERROR response contains data fields that allow the CLEC to determine what type of error was generated in the BPL. To correct a request fatally rejected by the BPL, the CLEC must resubmit the original 850/860 transaction with the necessary changes/corrections. Qwest will acknowledge the successful receipt of the corrected LSR as a valid service request with an 855/865 FOC as described above.

- Interconnect Service Center (ISC) –generated 855/865 Non-Fatal. Non-fatal errors are errors that occur after the order has successfully gone through the IMA. To correct a non-fatal error, the CLEC may send a corrected request with the same PON and incremented version to correct the errors or they may choose to call the ISC representative to discuss the errors.

- Interconnect Service Center (ISC)-generated 855/865 FATAL – This response from Qwest indicates that the request successfully passed BPL "system-generated" edit processing, but Qwest ISC personnel detected an error in the transaction that prohibited the request from being entered into the Qwest provisioning systems as a viable 'order'. The ISC fatal error response contains data fields that will allow the CLEC to determine what type of error the QWEST ISC generated. To correct a request rejected by the ISC, the CLEC must resubmit the request with an 860 transaction using the same PON and an incremented version number with the necessary changes/corrections. Qwest will acknowledge the successful receipt of the corrected LSR as a valid service request with an 855/865 FOC as described above.

  NOTE: The CLEC can send an 860 Supplemental Request before the CLEC receives the FOC from Qwest, if necessary.

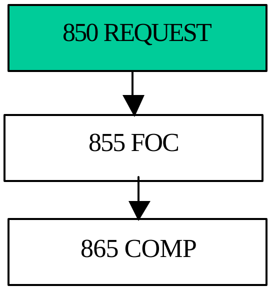
  NOTE: If an LSR was submitted via EDI, all supplemental activities must be submitted via EDI.

# IMA 850/860 Transaction Initiation/Responses/Resolution

The following diagrams illustrate typical EDI transaction flows between the CLEC and Qwest for IMA transactions. The Qwest BPL will perform mechanized validation edits upon receipt of the transaction. If the inbound transaction fails these edits, an error will be returned to the CLEC and the request will not be posted to Qwest systems. If the request successfully passes all mechanized edits, the request will either be posted to Qwest flow-through processing or will be passed to the Qwest ISC for review and manual processing.

Note: In the diagram below, transactions sent by the CLEC are shown in shaded boxes and transactions sent by Qwest are shown in white boxes. Functional Acknowledgements (997s) are not shown in this diagram but must be exchanged between Qwest and the CLEC in response to every transaction except a 997.

**Normal Flow**

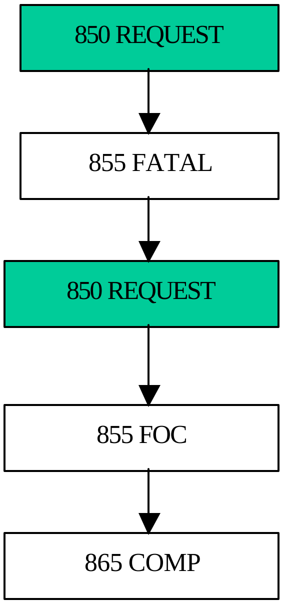


The diagram above depicts the normal transaction flow of an 850 LSR. The 850 LSR is submitted to Qwest via EDI. If the 850 LSR passes all BPL edits it is written to the IMA database. The processing of the 850 LSR generates an 855 FOC and eventually an 865 Completion.

The following diagram depicts the appropriate resolution for the failure of a request at the BPL:

Note: In the diagram below, transactions sent by the CLEC are shown in gray boxes and transactions sent by Qwest are shown in white boxes. Functional Acknowledgements (997s) are not shown in this diagram but must be exchanged between Qwest and the CLEC in response to every transaction except a 997.

**Exception Flow**
**(BPL Fatal)**

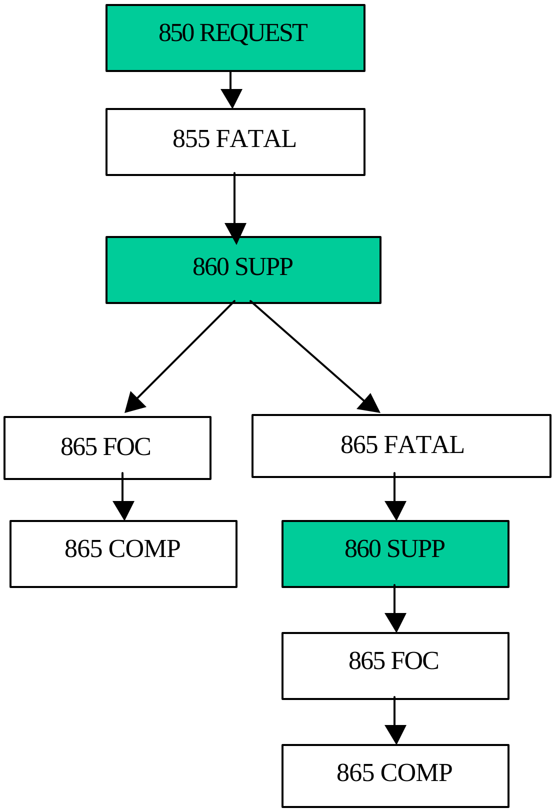


If the CLEC receives an 855 FATAL error message generated by the system, the CLEC should review the message and determine the cause of failure. The CLEC must resubmit a corrected 850 transaction, as the original request was never posted to Qwest systems. The original PON should be sent with the corrected request. The version number should remain the same as the one used in the original transaction. If the corrected 850 LSR passes all BPL edits, it is written to the IMA database. The processing of the corrected 850 LSR generates an 855 FOC and eventually an 865 Completion.

The following diagram depicts the flow of an 850 LSR that passes the BPL and is rejected to the CLEC by the Qwest ISC personnel.

Note: In the diagram below, transactions sent by the CLEC are shown in gray boxes and transactions sent by Qwest are shown in white boxes. Functional Acknowledgements (997s) are not shown in this diagram but must be exchanged between Qwest and the CLEC in response to every transaction except a 997.

**Exception Flow**
**(ISC Fatal)**



In response to an 855 FATAL generated by the ISC, the CLEC should submit an 860 supplemental to communicate the appropriate corrections to the original 850 request. The PON that was contained in the original request must be used; the version number must be incremented by one and the SUP field must be populated.

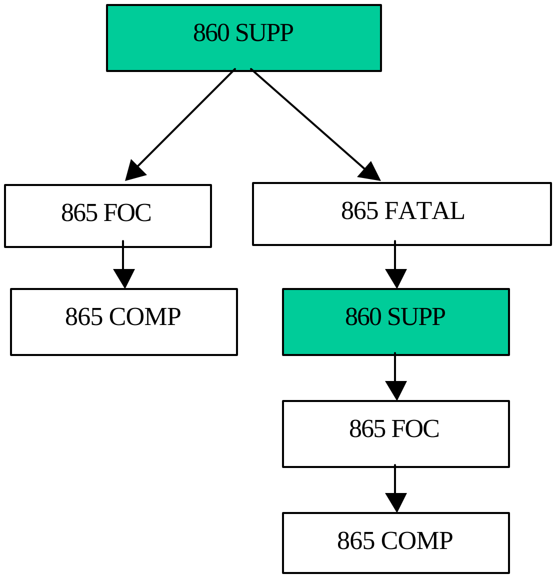
If the CLEC receives an 865 FATAL after the 860 supplemental request, the CLEC must review the 865 FATAL and determine the cause of failure. The CLEC must then resubmit a corrected 860 with the same PON and an incremented version number.

The corrected 860 LSR passes all BPL edits and is written to the IMA database. The processing of the corrected 860 LSR generates an 865 FOC and eventually an 865 Completion.

The following diagram depicts the flow of an 860 Supplemental. An 860 Supplemental (SUP) is issued when the CLEC has a need to change an 850 Purchase Order before or after it is posted in Qwest's SOP. If an 860 SUP is sent prior to a response being received for the original 850 transaction (i.e. an 855 response) the 860 replaces the original 850, and only an 865 response will be sent. There will be no 855 response generated.

Note: In the diagram below, transactions sent by the CLEC are shown in gray boxes and transactions sent by Qwest are shown in white boxes. Functional Acknowledgements (997s) are not shown in this diagram but must be exchanged between Qwest and the CLEC in response to every transaction except a 997.

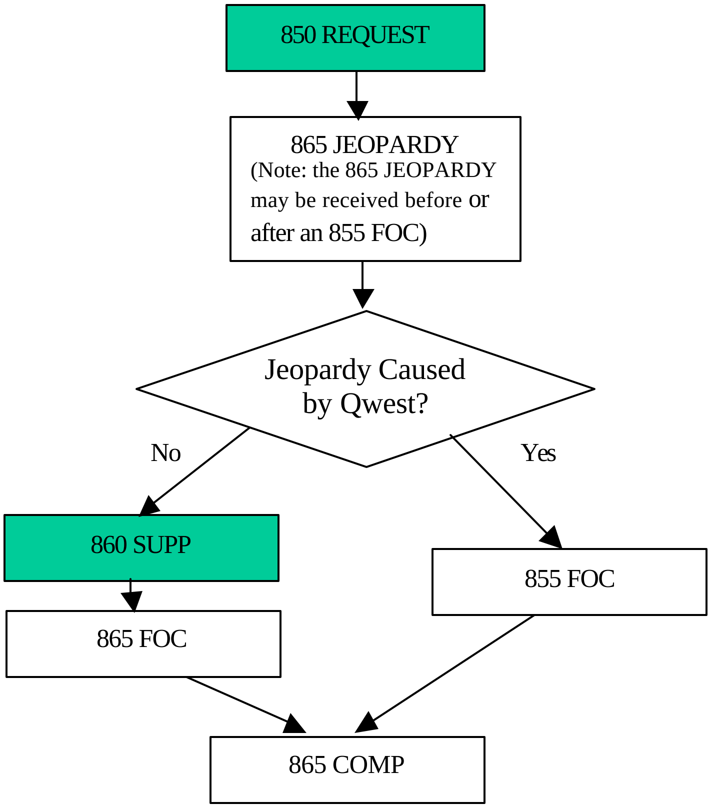
## Supplemental Flow



The following diagram depicts the appropriate resolution for a Jeopardy:

Note: In the diagram below, transactions sent by the CLEC are shown in gray boxes and transactions sent by Qwest are shown in white boxes. Functional Acknowledgements (997s) are not shown in this diagram but must be exchanged between Qwest and the CLEC in response to every transaction except a 997.

**Jeopardy Flow**


850 REQUEST
865 JEOPARDY
(Note: the 865 JEOPARDY may be received before or after an 855 FOC)
Jeopardy Caused by Qwest?
No
Yes
860 SUPP
855 FOC
865 FOC
865 COMP

If an error is detected after the FOC is sent, or if there is a problem meeting the commitment on the local service request, an 865 Jeopardy Notice will be sent. If the jeopardy is caused by Qwest conditions, Qwest will negotiate a new due date and send a new FOC. If the jeopardy is caused by non-Qwest conditions, the Co-Provider must submit a supplemental request to correct the condition with the same PON and incremented version number as the original request. If this jeopardy caused the due date to be missed, the supplemental request must include a revised due date.

## FBDL EDI Transaction Processing

The FBDL EDI order process is initiated by the submission of an 850 request transaction to Qwest. The CLEC transmits the request using the EDI 850 transaction set. Qwest will translate and forward the data to the appropriate Qwest LSS system. The request will activate the following response from Qwest:

Functional Acknowledgements (997s) must be exchanged between Qwest and the CLEC in response to every transaction except a 997. A negative (-997) indicates that the entire PON has failed the x12 edits (translator level) and it has not been forwarded to the LSS Input Interface Validation Program for content edits.

855– If it is returned with either an “AT” or “AC” status, this indicates that the 850 request was successfully received and has been posted (AT) or partially posted (AC) to the internal LSS provisioning systems as a listings ‘order’ (one or many). An 855 with a status of “RF” indicates that the entire PON or request failed.

## FBDL 850 Transaction Initiation/Responses/Resolution

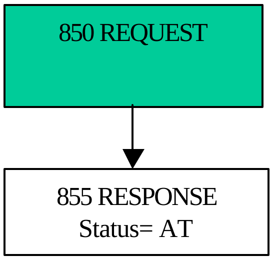
The following diagrams illustrate typical FBDL EDI transaction flows between the CLEC and Qwest for the FBDL product. LSS will perform a batch job late in the evening. If the entire inbound transaction fails the x12 translator edits, a -997 error will be returned and the request will not be posted to Qwest systems. If all or part of the request successfully passes, the successful portion of the request will be posted to Qwest LSS Database and the incorrect section(s) will be returned to the CLEC with error codes noted, at the PON and line level, on each invalid item. Any subsequent re-submittal to correct/complete the listing request data will need to:

- Only include (recap) the main listing.
- Include/correct the data that was not already posted as indicated by the error codes.

The following diagram depicts the normal transaction flow of an 850 FBDL request. The 850 FBDL request is submitted to Qwest via EDI. If the 850 FBDL request passes all X12 edits it will be passed to LSS. The processing of the 850 FBDL request generates an 855 FBDL response after the LSS processing and will be returned to the CLEC the following day.

Note: In the diagram below, transactions sent by the CLEC are shown in gray boxes and transactions sent by Qwest are shown in white boxes. Functional Acknowledgements (997s) are not shown in this diagram.

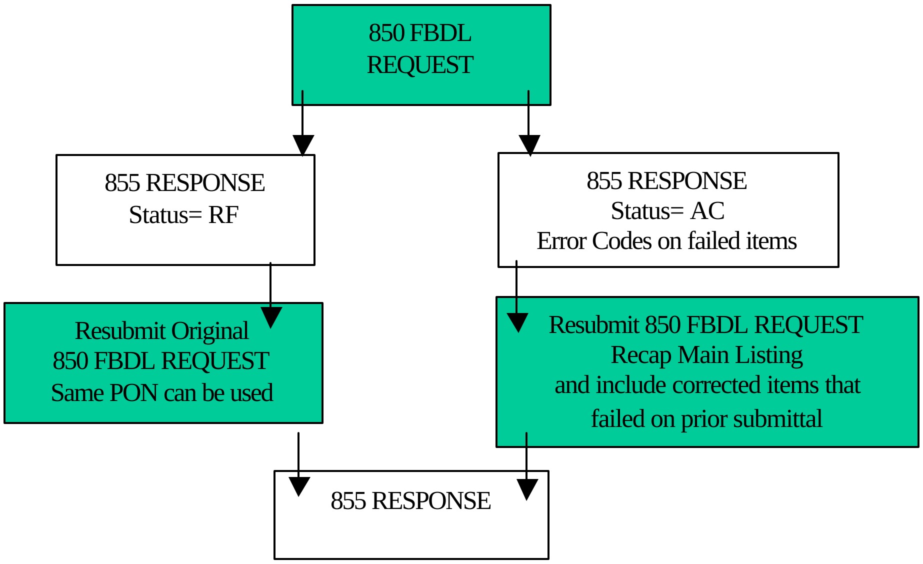
## FBDL Normal Flow



The following diagram depicts the appropriate resolution of any failure of a FBDL request:

Note: In the diagram below, transactions sent by the CLEC are shown in gray boxes and transactions sent by Qwest are shown in white boxes. Functional Acknowledgements (997s) are not shown in this diagram but must be exchanged between Qwest and the CLEC in response to every transaction except a 997. Supplemental transactions are not permitted for FBDL requests.

## FBDL Error Flow


850 FBDL REQUEST
855 RESPONSE Status= RF
855 RESPONSE Status= AC Error Codes on failed items
Resubmit Original 850 FBDL REQUEST Same PON can be used
Resubmit 850 FBDL REQUEST Recap Main Listing and include corrected items that failed on prior submittal
855 RESPONSE

When the CLEC receives an 855 FBDL response with error message(s) the next day after it was processed by the LSS system, the CLEC should review the message(s) and determine the cause of error. An “RF” response indicates that the entire PON has failed and it can be corrected and resubmitted using the same PON since it has no data posted to the LSS database. For a status of “AC”, the CLEC must submit a corrected 850 transaction, correcting only the incorrect portions, since the some part of the request was posted to Qwest systems. Do not use the same PON as submitted on the original; if the CLEC desires to relate the corrected request with an original transaction version, the original PON can be incremented with an alpha and numeric suffix (a1, a2, etc.). If no errors are returned the following day on the 855 response then the submittal is correct, the 850 FBDL is processed, and the request data is written to the LSS database. FOCs and Completion notices are not generated on FBDL transactions.

# *Trading Partner Access Information*

## Trading Partner Relationship/Transport

Before a CLEC can use the EDI interface, the initial communications with the Implementation Team must occur. Once this is in place, the CLEC identity, dedicated circuit, IP addresses, and Digital Certificates can be implemented to enable the electronic exchange of information.

Qwest uses the Interactive Agent (IA) as a means to support the exchange of EDI data between trading partners within the telecommunications industry. The Telecommunications Industry Forum (TCIF) has suggested the use of the IA as the method in which trading partners exchange EDI data because it allows for an open architecture, is simple to design, is easy to implement, and provides for a secure transaction environment. Please be advised that Qwest will require the following to be performed annually:

Re-exchange of Digital Certificates
Reconfiguration of IA (Interactive Agent)
Firewall and IA-to-IA Testing

The IA functions as an interface between the EDI translator and the network firewall. It can best be described as added functionality to the Transmission Control Protocol/Internet Protocol (TCP/IP) with Secure Sockets Layer Version 3 (SSL3). TCP/IP with SSL3 is the actual transport mechanism whereby data is physically sent from one network server to another within a secured context. TCP/IP with SSL3 offers:

- *confidentiality*, through the use of user-specified encryption algorithms
- *integrity*, through the use of user-specified cryptographic hash function
- *authentication*, through the use of X.509 v3 public key certificates
- *non-repudiation*, through the use of cryptographically-signed messages3

The IA controls the transport process and performs the following functions:

- Directs and maintains the transport session
- Determines where the EDI data is being sent to or being received from
- Encodes EDI files that are to be transmitted to a CLEC

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[3] Garfinkel, Simson and Gene Spafford. Web Security and Commerce, O'Reilly Nutshell, June 1997, Pg. 215.

- Decodes EDI files that are received from a CLEC
- Initiates and terminates the TCP/IP with SSL3 processes
- Logs the transmission status for auditing and/or trouble shooting purposes
- Allows for error handling and recovery, in the event an Interactive Agent session is terminated due to technical failures

An additional benefit of the IA is that it allows for the transport mechanism to listen for incoming data on two ports. This allows for high priority data to be sent to one port for immediate processing and normal priority data to be sent to another port for scheduled processing. TCIF has defined pre-Order request transactions as high priority data and Order request transactions as normal priority data. TCIF has designated port number 6998 for high priority transactions and port number 6999 for normal priority transactions. The IA *listens* on these two ports for incoming data. TCIF does not recommend which port numbers should be used for outgoing data.

The *Electronic Communications Interactive Agent Functional Specification* details the technical requirements needed to design and implement the Interactive Agent. The final Issue 2 document was approved as “TCIF-98-006 Issue 2” dated 12/06/98. Qwest is compliant with this standard and is currently using this in production. Documentation regarding this can be found at **HTTP://www.atis.org** under the heading “Draft Interactive Agent Specification, version 2”. The following section references the Trading Partner Access Information (TPA) section of the Disclosure Document. It also describes the usage and formulation of:

- ISA and IEA Interchange Control Header and Trailer segments
- GS and GE Functional Group Header and Trailer segments.

The typical transaction data sequence (indented by segment) is exemplified by the following outline:

- ISA – sender/receiver identity
    - GS – functional group/routing/Order type/industry standard version
        - ST – LSR, EUI, Order detail
        - SE – end of ST segment
    - GE – end of GS segment
- IEA – end of ISA segment

The TPA section of the Disclosure Document defines the Qwest requirements for Date and Time fields, EDI delimiters, and fields used in the EDI transactions that are specific to Qwest. Included in the Disclosure Document is an Industry Standards Table illustrating OBF and SOSC issues and the X12 Standard related to each OBF Form.

The following is an example of the ORDERING FUNCTION / PRODUCT ID matrix for the POTS product transaction. The Product ID column indicates the typical transaction set that may be passed between the Qwest Business Processing Layer (BPL) and the EDI Translator at Qwest.

| ORDERING FUNCTION | PRODUCT ID |
|---|---|
| POTS Service Request | 850POTS |
| POTS Service Request Supplemental | 860POTS |
| Firm Order Confirmation | 855FOC |
| Firm Order Confirmation on Supplemental | 865FOC |
| Non Fatal Error Response | 855NF |
| Non Fatal Error Response on Supplemental | 865NF |
| Fatal Error Response | 855FATAL |
| Fatal Error Response on Supplemental | 865FATAL |
| Jeopardy | 865JEOP |
| Status Update | 855SU |
| Completion | 865COMP |
| FBDL | 850 FBDL and 855 FBDL Only |

The Product ID field (suffixed with the proper IMA/FBDL Version) will appear in the GS segments that are passed between the CLEC and Qwest. Examples of the Functional Group Envelope and Routing Information GS segments appear in the next section.

## Overview: Functional Group Envelope/Routing Information

Separate maps have been created for the individual transactions. EDI envelopes are used for the initiation of translation processing and to invoke the correct map in Qwest systems. The Functional Group Header segment (GS) and the Functional Group Trailer segment (GE) are wrapped around the transaction data. In order to optimize interactive performance, only one EDI Transaction can be included within each Functional Group Envelope. The following is an example of an EDI transaction received at Qwest for a POTS Order that complies with this policy. In the example (see next page), the transaction information for one single item is represented by the data that begins with the ST segment and ends with the SE segment

## EXAMPLE EDI TRANSACTION:

```
ISA|00|       |00|       |ZZ|COPROVIDERO   |ZZ|QWESTO
|990203|1526|U|00401|000000055|0|P|>
GS|PO|COPROVIDERO|POTS08|19980203|1526|0055|X|004010
ST|850|0014
BEG|00|SS|R42POT001BILL||19991001
REF|11|303-555-1111|AN
REF|SU|C|RTR
PAM|QO|1|EA
DTM|097|19990715|1332
DTM|150|19990915
SI|TI|RE|EB
SI|TI|AA|C
SI|TI|TY|2A
N1|78|Z99
PER|AG|Bill|TE|303-555-3333|||EM|Bill7@Qwest.com
PO1|1|1|EA|||ZZ|EU_SA
N1|IT|ROBERT & BILL
N4|PORTLAND|OR|97230||RJ
NX2|01|1200
NX2|02|MAIN
PO1|2|1|EA|||ZZ|RE
SI|TI|SA|C|TN|303-555-2222
REF|IX|1|LNUM
SLN|FA|1|A|1|EA
SI|TI|SA|A|SF
SLN|FA|2|A|1|EA
SI|TI|SA|T|SF
CTT|2
SE|26|0014
GE|1|0055
IEA|1|000000055
```

The CLEC must always refer to the appropriate issue of the Disclosure Document for release-specific formatting rules.

## ISA TABLE

At the outer levels of the envelope are the ISA (Interchange Control Header) and the IEA (Interchange Control Trailer) segments. The ISA identifies the sender and receiver of this document, and Qwest and the CLEC will have agreed upon the values used for these. In this example, the sender is COPROVIDERO and the receiver is QWESTO.

ISA and IEA definitions:

The ISA segment is the Interchange Control Header
The IEA segment is the Interchange Control Trailer

The following table outlines data to be included in the ISA Header used between the CLEC and Qwest. (Please refer to the appropriate Disclosure Document for release-specific ISA Table information.) Each element, or field, in the ISA segment has a fixed length, indicated in the column labeled “Length”. Alpha fields should be padded with blanks, and numeric fields should contain leading zeroes.

The CLEC and Qwest agree to the following (example) routing information:

| | SENT TO QWEST | RECEIVED FROM QWEST | LENGTH |
|---|---|---|---|
| ISA01 | ***‘00’*** *(No Authorization information present)* | ***‘00’*** *(No Authorization information present)* | 02 |
| ISA02 | ***Spaces*** *(Authorization information)* | ***Spaces*** *(Authorization information)* | 10 |
| ISA03 | ***‘00’*** *(No Security information is present)* | ***‘00’*** *(No Security information is present)* | 02 |
| ISA04 | ***Spaces*** *(Security Information)* | ***Spaces*** *(Security information)* | 10 |
| ISA05 | *CLEC TP qualifier* | ***‘ZZ’*** *(Mutually Defined)* | 02 |
| ISA06 | *CLEC TP ID* | ***‘QWESTO’*** *(Note: This Trading partner ID is used only for Qwest Order and post-Order transactions. The “O” is the unique identifier.)* | 15 |
| ISA07 | ***‘ZZ’*** *(Mutually Defined)* | *CLEC TP qualifier* | 02 |
| ISA08 | ***‘QWESTO’*** *(Note: This Trading partner ID is used only for Qwest Order and post-Order transactions. The “O” is the unique identifier.)* | *CLEC TP ID* | 15 |
| ISA09 | *Date of the interchange. YYMMDD* | *Date of the interchange. YYMMDD* | 06 |
| ISA10 | *Time of the interchange. HHMM (24 Hour Clock)* | *Time of the interchange. HHMM (24 Hour Clock)* | 04 |
| ISA11 | ***‘U’*** *(U.S. EDI Community of ASC X-12, TDCC, and UCS)* | ***‘U’*** *(U.S. EDI Community of ASC X-12, TDCC, and UCS)* | 01 |
| ISA12 | ***‘00401’*** *(Interchange Version ID)* | ***‘00401’*** *(Interchange Version ID)* | 05 |
| ISA13 | *Sender’s translator assigned sequential control number (must be unique)* | *Sender’s translator assigned sequential control number (must be unique)* | 09 |
| ISA14 | ***‘0’*** *(No acknowledgment requested)* | ***‘0’*** *(No acknowledgment requested)* | 01 |
| ISA15 | ***‘P’*** *(Production data)* | ***‘P’*** *(Production data)* | 01 |
| ISA16 | *> (hex 0x3e) (Sub-element Separator)* | *> (hex0x3e) (Sub-element Separator)* | 01 |

Note: The ISA element is NOT a variable length.

This is an example of how the ISA Header will look in the EDI transaction:
ISA|00|          |00|          |ZZ|COPROVIDERO     |ZZ|***QWESTO***         |991210|0900|U|00401|000000019|0|P|>

# GS Table Information

## GS and GE Segment Definitions

The GS segment is the Functional Group Header
The GE segment is the Functional Group Trailer

The third field, or element, within the GS segment (represented in the GS Table example below) by the data (POTS08) is the Receiver Code. This identifies the transaction as a POTS Order and this transaction is then routed to the proper map for this business function based on that value. To designate a different transaction, for example Loop Service with Number Portability, this value will change to the unique value defined for that transaction or product, in this case LSNP08. In this manner, the proper map will be triggered to accommodate the business function being requested. The CLEC and Qwest agree to the routing information that is defined in the IMA/FBDL EDI Disclosure Document.

The following tables provide an example of the GS Segments that are used within the POTS ordering function.

The CLEC and Qwest agree to the following (example) routing information:

| | **SENT TO QWEST** | **RECEIVED FROM QWEST** |
|---|---|---|
| GS01 | SEE GS TABLE BELOW | SEE GS TABLE BELOW |
| GS02 | *CLEC TP ID* | SEE GS TABLE BELOW |
| GS03 | SEE GS TABLE BELOW | *CLEC TP ID* |
| GS04 | *Date of the functional group. CCYYMMDD* | *Date of the functional group. CCYYMMDD* |
| GS05 | *Time of the functional group. HHMM (24 hour clock)* | *Time of the functional group. HHMM (24 hour clock)* |
| GS06 | *Sender's translator assigned sequential control number (must be unique)* | *Sender's translator assigned sequential control number (must be unique)* |
| GS07 | ***'X'*** *(Accredited Standards Committee X-12)* | ***'X'*** *(Accredited Standards Committee X-12)* |
| GS08 | ***'004010'*** *(Version)* | ***'004010'*** *(Version)* |

## GS Table

The CLEC and Qwest agree to the following (example) routing information:

| **ORDERING FUNCTION** | **QWEST SEND/ RECEIVE** | **DOCUMENT** | **GS01 VALUE** | **GS02 VALUE** | **GS03 VALUE** |
|---|---|---|---|---|---|
| POTS Service Request | Receive | 850POTS | PO | *CLEC TP ID* | POTS08 |
| Firm Order Confirmation | Send | 855FOC | PR | FOC08 | *CLEC TP ID* |
| Loop Service with Number Portability | Send | 850LSNP | PO | CLEC TP ID | LSNP08 |

The following is an example of the GS Segment for each of the POTS ordering functions:

**POTS Service Request:**
Field GSnn:

```
   01       02       03        04     05 06 07  08
GS|PO|COPROVIDERO|POTS08|19991210|0900|01|X|004010
```

**Firm Order Confirmation:**
Field GSnn:

```
   01    02          03        04     05 06 07  08
GS|PR|FOC08|COPROVIDERO|19991210|0905|01|X|004010
```

# Mapping Example and Data Dictionary Items:

## Time Zone Format Used in EDI Transaction

Qwest recommends that all times shown in the DTM|097 segment be represented in accordance with the Mountain Time Zone.

## Exceptions to Certain Segment Rules

Qwest has made a change to the maximum segment use in three defined cases:

- The maximum use of NX2 segments has been changed to greater than 1 (>1).
- The maximum use of SI segments has been changed to greater than 1 (>1).
- In the Service Availability Response (SAR) and the Customer Service Record Response (CSRR) transactions, the maximum use of the SLN segments has been changed to greater than 1 (>1).

## EDI Delimiters

The element separator will be represented as a pipe (i.e., **|** ). The hexadecimal equivalent for this symbol is **7C**. The sub-element separator will be represented as the greater than sign (i.e., **>**). The hexadecimal equivalent is **X3E**. The segment separator will be the linefeed character. The hexadecimal equivalent is **0A**.

## Fields Specific to Qwest

Order fields that are specific to the Qwest implementation were added to selected LSOG forms and are indicated by an alpha character following the field number, i.e. (EU-19a). These fields are not defined in the OBF form for the corresponding LSOG issue. Qwest does provide information regarding proper use of these fields on the Developer Worksheets.

Industry Standards Table:

| **OBF FORM** | **OBF ISSUE** | **EDI SOSC ISSUE** | **X12 STANDARD** |
|---|---|---|---|
| Local Service Request | LSOG5 | Issue 9 | 004020 |
| End User Information | LSOG5 | Issue9 | 004020 |
| Resale | LSOG5 | Issue9 | 004020 |
| Directory Listing | LSOG5 | Issue 9, when applicable | 004020 |
| Directory Service Request | LSOG5 | Issue 9 | 004020 |
| Firm Order Confirmation | LSOG5 | Issue 9 | 004020 |
| Non Fatal Error Response | LSOG5 | Issue 9 | 004020 |
| Fatal Error Response | LSOG5 | Issue 9 | 004020 |
| Jeopardy | LSOG5 | Issue 9 | 004020 |
| (Status Update) | LSOG5 | Issue 9 | 004020 |
| Completion | LSOG5 | Issue 9 | 004020 |

## 997 Acknowledgements

When Qwest receives and processes the transaction a 997 Functional Acknowledgement will be returned to the CLEC (as previously discussed in the Transaction Flow Diagrams). The purpose of the 997 is to acknowledge the receipt and translation status of a transaction set at the EDI translator/gateway. The translator will return a positive (+997) acknowledgement to the sender when an inbound transaction passes EDI edits. The translator will return a negative (-997) acknowledgement to the sender when the inbound transaction set does not meet the ANSI ASC X12 syntax rules. The sender of the transaction set being acknowledged with a '-997' is responsible for correcting any errors and resubmitting the transaction.

The following is an example of a 997 for the POTS Order that passed the EDI edits.

```
ISA|00|          |00|          |ZZ|QWESTO         |ZZ|COPROVIDERO|991104|1538|U|00401|000000164|0|P|>
GS|FA|POTS08|COPROVIDERO|19991104|1538|165|X|004010
ST|997|0395
AK1|PO|0055
AK2|850|0014
AK5|A
AK9|A|1|1|1
SE|6|0395
GE|1|165
IEA|1|000000164
```

It is required that all transactions received by Qwest or by the CLEC are acknowledged in this manner. The only exception to this is that 997 Functional Acknowledgements are not acknowledged. The level of the acknowledgment will stay at the AK1 and AK2 level as shown; the AK3 and AK4 segments, which provide detail acknowledgement reporting, will not be used. Please refer to the appropriate IMA/FBDL EDI Disclosure Document for release-specific formatting information.

# *Mapping Examples*

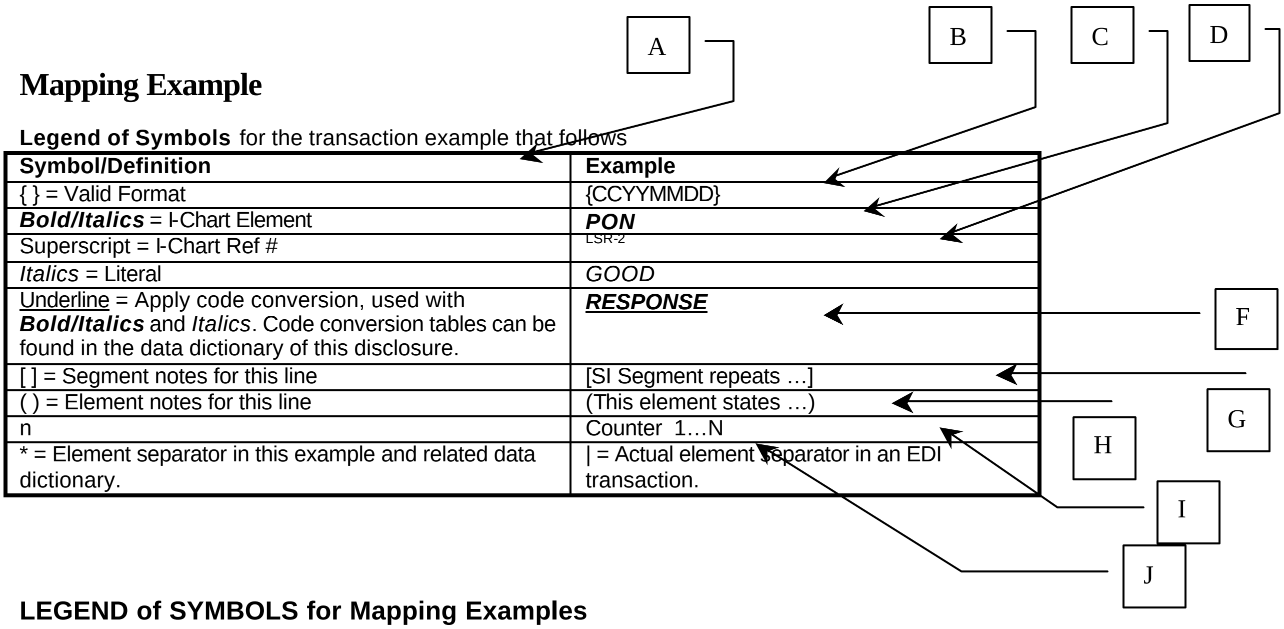
Qwest will provide the CLEC with mapping examples of all EDI transactions in the Disclosure Document. It is expected the CLEC will use the mapping examples as a reference when developing their internal interactive EDI system.

The body of each EDI Mapping Example consists of three sections:

- Header: The Header identifies with which transaction the mapping example is associated.
- Legend of Symbols: The Legend of Symbols provides the CLEC with definitions of the symbols Qwest uses throughout the body of the mapping example.
- EDI mapping example: This section details the transaction in an EDI format that is consistent with Qwest business requirements.

The following diagram and legend explain the mapping example information (as also provided in the IMA/FBDL EDI Disclosure Document). Please refer to the appropriate Disclosure Document for release-specific mapping information at the following web site:

http://www.qwest.com/disclosures/netdisclosure409.html



## Mapping Example

**Legend of Symbols** for the transaction example that follows

| **Symbol/Definition** | **Example** |
|---|---|
| { } = Valid Format | {CCYYMMDD} |
| ***Bold/Italics*** = I-Chart Element | ***PON*** |
| Superscript = I-Chart Ref # | $^{LSR-2}$ |
| *Italics* = Literal | *GOOD* |
| Underline = Apply code conversion, used with ***Bold/Italics*** and *Italics*. Code conversion tables can be found in the data dictionary of this disclosure. | ***RESPONSE*** |
| [ ] = Segment notes for this line | [SI Segment repeats …] |
| ( ) = Element notes for this line | (This element states …) |
| n | Counter 1…N |
| * = Element separator in this example and related data dictionary. | \| = Actual element separator in an EDI transaction. |

### LEGEND of SYMBOLS for Mapping Examples

A. The header includes the title of the transaction. Each individual transaction Qwest supports has its own Mapping Example.

B. If the need arises, the appropriate format for the data contained by the element can be found within curved braces after the field name. An example would be the standard date format, with two places each for the century, year, month, and day: {CCYYMMDD}.

***C. Bolded and italicized*** field names correspond to the field name in the developer worksheets associated with this transaction.

D. The $^{\text{superscripted}}$ identifier following a field name that is ***bolded and italicized*** indicates the developer worksheet to be referenced and the field number to be referenced for clarification.

*E. Italicized* text indicates that the field should contain the text exactly as shown. For instance, *GOOD* indicates that the word "GOOD" should be placed in the field.

F. Field names that are underlined indicate that a code conversion is occurring in the Qwest EDI system. Please refer to the Data Dictionary of the appropriate Disclosure Document for release-specific code conversion information.

G. Square brackets [segment info...] surround notes that pertain to a particular segment.

H. Element Notes (element info...) appear inside regular parenthesis and immediately follow the element to which they pertain.

I. A lower case "n" in an element denotes that the element should contain an integer value that increments by one each time the loop is repeated. The first PO1 loop should have a counter value of 1, the second should have a counter value of 2, and so on.

J. Asterisks are generally accepted as an element delimiter for EDI data, so they have been used in the Mapping Examples for readability. However, the element delimiter will be the pipe symbol ( | ) in the actual EDI transactions that are exchanged.

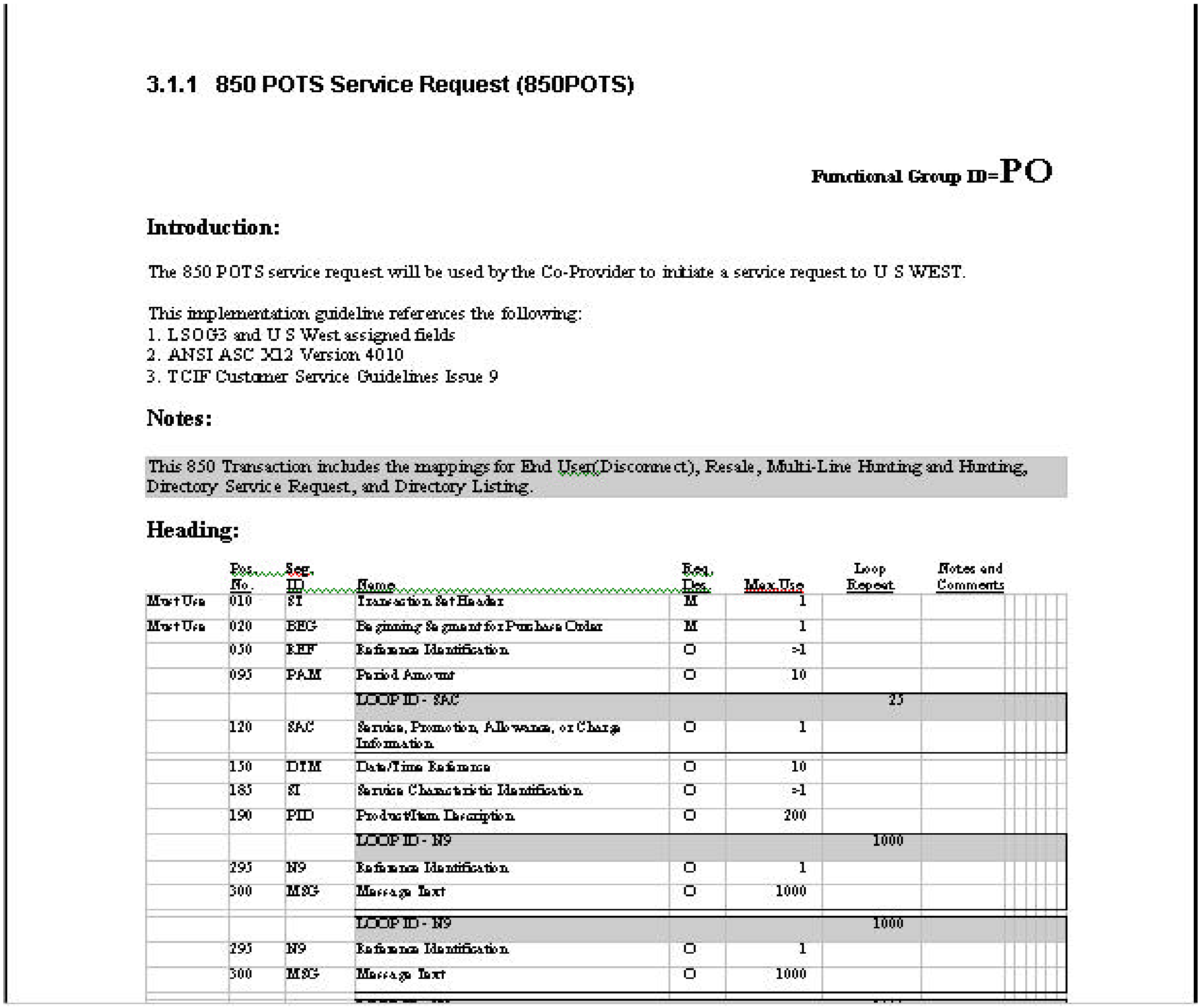
## POTS Mapping Segment Example

ST*850*TRAN SET CONTROL #
BEG*00*SS****PON***$^{\text{LSR-2}}$**PO Date (See Trading Partner Access Information)
REF*11****AN***$^{\text{LSR-7}}$**AN*
REF*11****EAN***$^{\text{EU-35}}$**EAN*
REF*4N****BI1***$^{\text{LSR-52}}$*BI1
REF*12****BAN1***$^{\text{LSR-53}}$*BAN1
REF*4N****BI2***$^{\text{LSR-54}}$*BI2
REF*12****BAN2***$^{\text{LSR-55}}$*BAN2
REF*JB****PROJECT***$^{\text{LSR-17}}$
REF*SU****RTR***$^{\text{LSR-24}}$**RTR*
REF*CO****RPON***$^{\text{LSR-44}}$**RPON*
REF*1V****RORD***$^{\text{LSR-45}}$**RORD*
PAM*48****PG_OF_***$^{\text{LSR-10}}$ (1st 2 Bytes)*EA
PAM*47****PG_OF_***$^{\text{LSR-10}}$ (2nd 2 Bytes)*EA
PAM*KC****DQTY***$^{\text{EU-5}}$*EA
PAM*63****LQTY***$^{\text{LS-5, LSNP-5}}$*EA
PAM*OC****NPQTY***$^{\text{LNP-5, INP-5}}$*EA
SAC*N**TI*EXP [If this segment appears then ***EXP***$^{\text{LSR-22}}$ = “Y”]
SAC*N**TI*EEH [If this segment appears then ***AENG***$^{\text{LSR-26}}$ = “Y”]
SAC*N**TI*OAC [If this segment appears then ***ALBR***$^{\text{LSR-27}}$ = “Y”]
DTM*097****D/TSENT*** {CCYYMMDD} $^{\text{LSR-11}}$*****D/TSENT*** {HHMM}$^{\text{LSR-11}}$
DTM*150****DDD***{CCYYMMDD}$^{\text{LSR-12}}$***TM/RTM****APPTIME***{HHMM-HHMM}$^{\text{LSR-13}}$
DTM*992****TM/RTM****DFDT***$^{\text{LSR-16}}$
DTM*270****DATED***{CCYYMMDD}$^{\text{LSR-30}}$
SI*TI*RE****REQTYP***$^{\text{LSR-19}}$
SI*TI*AA****ACT***$^{\text{LSR-20}}$
SI*TI*TY****TOS***$^{\text{LSR-38}}$
SI*TI*NC****NC***$^{\text{LSR-40}}$
SI*TI*NI****NCI***$^{\text{LSR-41}}$
SI*TI*NJ****SEC NCI***$^{\text{LSR-43}}$
PID*S**TI*AH***SO-RSQ****CHC***$^{\text{LSR-18}}$
PID*S**TI*CONV IND***SO-RSQ****CONVIND***$^{\text{LSR-20a}}$
PID*S**TI*AN***SO-RSQ****SCA***$^{\text{LSR-28}}$
PID*S**TI*AO***SO-RSQ****AGAUTH***$^{\text{LSR-29}}$
PID*S**TI*BI***SO-RSQ****FBI***$^{\text{EU-37}}$
PID*S**TI*AP***SO-RSQ****AI***$^{\text{LSR-34}}$
PWK*DW*NS*1*DG*91****DRC***$^{\text{LSR-90}}$

# *Data Dictionary*

Each transaction or product-specific chapter within the Qwest IMA/FBDL EDI Disclosure Document contains a Data Dictionary describing the individual fields and appropriate values in an EDI transaction set.

The Data Dictionary is divided into two sections. The first section illustrates the segments used in the EDI transaction in the order they appear and indicates which segments are included in the Header, the Detail, and the Summary sections of the transaction set to be sent to Qwest. Segments that are part of the ANSI X12 transaction set, but that are not used by Qwest, are not included in the Data Dictionary. Below is a partial example of this section:



### 3.1.1 850 POTS Service Request (850POTS)

**Functional Group ID=PO**

**Introduction:**

The 850 POTS service request will be used by the Co-Provider to initiate a service request to U S WEST.

This implementation guideline references the following:
1. LSOG3 and U S West assigned fields
2. ANSI ASC X12 Version 4010
3. TCIF Customer Service Guidelines Issue 9

**Notes:**

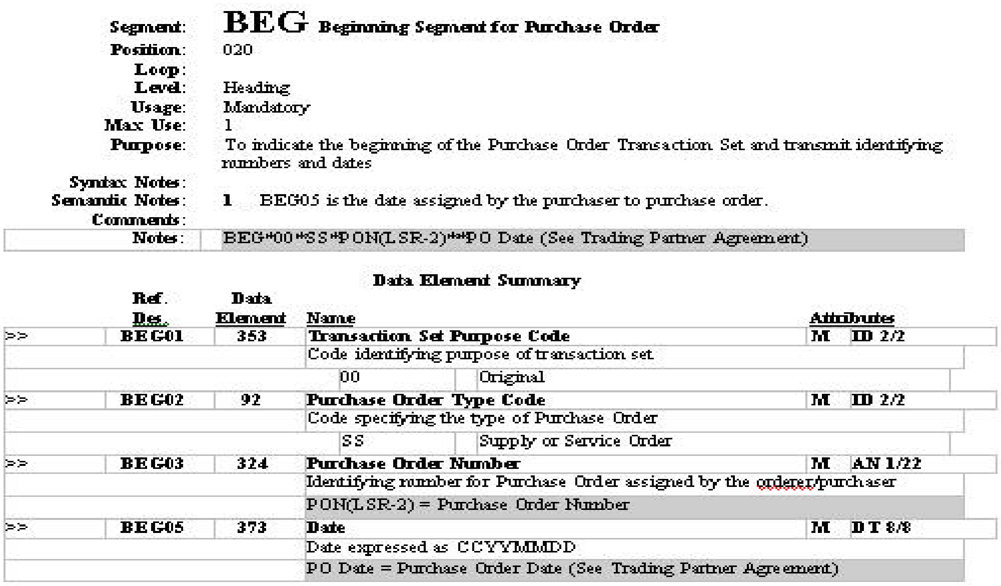
This 850 Transaction includes the mappings for End User(Disconnect), Resale, Multi-Line Hunting and Hunting, Directory Service Request, and Directory Listing.

**Heading:**

| | Pos. No. | Seg. ID | Name | Req. Des. | Max.Use | Loop Repeat | Notes and Comments |
|---|---|---|---|---|---|---|---|
| Must Use | 010 | ST | Transaction Set Header | M | 1 | | |
| Must Use | 020 | BEG | Beginning Segment for Purchase Order | M | 1 | | |
| | 050 | REF | Reference Identification | O | >1 | | |
| | 095 | PAM | Period Amount | O | 10 | | |
| | | | LOOP ID - SAC | | | 25 | |
| | 120 | SAC | Service, Promotion, Allowance, or Charge Information | O | 1 | | |
| | 150 | DTM | Date/Time Reference | O | 10 | | |
| | 185 | SI | Service Characteristic Identification | O | >1 | | |
| | 190 | PID | Product/Item Description | O | 200 | | |
| | | | LOOP ID - N9 | | | 1000 | |
| | 295 | N9 | Reference Identification | O | 1 | | |
| | 300 | MSG | Message Text | O | 1000 | | |
| | | | LOOP ID - N9 | | | 1000 | |
| | 295 | N9 | Reference Identification | O | 1 | | |
| | 300 | MSG | Message Text | O | 1000 | | |

This section of the Data Dictionary also documents the four major references from which the configuration and data values are based. The four references are Local Service Ordering Guidelines (LSOG), Qwest specific fields, ANSI ASC X12, and TCIF Customer Service Guidelines. Together, these documents provide the means necessary for the CLEC to understand and prepare the transaction sets used to pass information between Qwest and CLECs.

This second section of the Data Dictionary repeats the segments and displays them broken down into their respective elements. Only elements that are used in sending information to Qwest are shown. This section includes the Segment Identification, its Level, Usage, Max Use, Purpose and any Semantic Notes. Accompanying the segment's element description is the Reference Designation, the ANSI X12 Data Element reference number, and the Element Name with its attributes. The element description includes notes that will enable the CLEC to understand what type of information and what code values Qwest expects within the element. The diagram below is an example of the information found in this section:



**Segment:** **BEG** **Beginning Segment for Purchase Order**
**Position:** 020
**Loop:**
**Level:** Heading
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To indicate the beginning of the Purchase Order Transaction Set and transmit identifying numbers and dates
**Syntax Notes:**
**Semantic Notes:** **1** BEG05 is the date assigned by the purchaser to purchase order.
**Comments:**
**Notes:** BEG*00*SS*PON(LSR-2)**PO Date (See Trading Partner Agreement)

**Data Element Summary**

| | Ref. Des. | Data Element | | Name | Attributes |
|---|---|---|---|---|---|
| >> | **BEG01** | **353** | | **Transaction Set Purpose Code** | **M ID 2/2** |
| | | | | Code identifying purpose of transaction set | |
| | | | 00 | Original | |
| >> | **BEG02** | **92** | | **Purchase Order Type Code** | **M ID 2/2** |
| | | | | Code specifying the type of Purchase Order | |
| | | | SS | Supply or Service Order | |
| >> | **BEG03** | **324** | | **Purchase Order Number** | **M AN 1/22** |
| | | | | Identifying number for Purchase Order assigned by the orderer/purchaser | |
| | | | | PON(LSR-2) = Purchase Order Number | |
| >> | **BEG05** | **373** | | **Date** | **M DT 8/8** |
| | | | | Date expressed as CCYYMMDD | |
| | | | | PO Date = Purchase Order Date (See Trading Partner Agreement) | |

Each pertinent segment is illustrated in this fashion and each element description includes notes pertaining to its use. For example, in the **BEG01** description, the code '00' is shown as the value to be used. A reference to the relevant developer worksheet is indicated when the element's code value is further defined in the developer worksheets provided to the user. The BEG03 description, for example, includes the following reference:

PON (LSR-2) = Purchase Order Number

In this reference, LSR-2 refers to the LSR developer worksheet field that describes the PON field.

Please refer to the appropriate Disclosure Document for release-specific Data Dictionary Information at the following website:

http://www.qwest.com/disclosures/netdisclosure409.html.

# *Developer Worksheets*

The Qwest Developer Worksheets contain the Qwest business rules that identify how the CLEC is to correctly format and populate Qwest EDI requests. The Developer Worksheets summarize the business rules for each field on a request and within each transaction or Order form segment. Qwest LSOG forms used for a transaction are described with the rules regarding how each field is used including:

- Business rules,
- Field length, field characteristics
- Valid values.

The following pages explain the layout and content of a Qwest Developer Worksheet, (Figure 3) and an explanation of each component identified on the example layout.

Beginning with release 8.0, Pre-Order, Developer Worksheets will contain an additional column. This column, 'LSOG 5 Ref", indicates the LSOG 5 reference number for all OBF supported fields. Where this column is blank, the field can be construed as Qwest-specific.

Figure 3 Developer Worksheet Example

| A | B | C | | | | | | | | D | | | | E | F | G | H |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ref** | **Field Name** | **Action Type** | **POTS Resale** | **PAL – CLECs** | **PAL – PSPs** | **BRI ISDN Resale** | **PBX** | **Listings Only** | **Designed Trunks Resale** | **Megabit** | **UNE-P POTS** | **PRI ISDN Resale Trunks** | **UNE-P ISDN BRI** | **Negotiated Business Rules**<br>Rules apply to individual products.<br>Product number precedes the applicable business rule (e.g.: **1-4** means rule applies to products 1, 2, 3 & 4; **1,4** means rule applies only to 1&4) | **Field Length** | **Field Characteristics** | **Valid Values** |
| | | | **1** | **3** | **3a** | **8** | **10** | **13** | **17** | **21** | **25** | **28** | **29** | **N=Not Req'd., R=Required, O=Optional, C=Conditional, Blank=Action Type is N/A , Asterisk (*) = Repeating Field** | | | |
| | **3.2 Administrative Section** | | | | | | | | | | | | | | | | |
| 1 | PON | N=New Installation | N | N | N | N | N | | N | | N | N | N | **Products 1, 3, 3a, 8, 10, 17, 21, 25, 28, 29:** | 16 | a/n | |
| | | D=Disconnect | N | N | N | N | N | | N | N | N | N | N | Obtain from LSR. | | | |
| | | W=Conversion As Is | N | N | | N | N | | N | N | N | N | N | | | | |
| | | V=Conv. As Specified | N | N | | N | N | | N | N | N | N | N | | | | |
| | | Z=Conv. Spec/No DL | N | N | | N | N | | N | N | N | N | N | | | | |
| | | C=Change | N | N | N | N | N | | N | N | N | N | N | | | | |
| | | C=Add/Delete Feature | N | | | | N | | | N | N | | | | | | |
| | | C=Add/Delete Listings | N | | | | N | | | N | N | | | | | | |
| | | C=Add/Delete Hunting | N | | | | N | | | N | N | | | | | | |
| | | C=Drop/Replace NID | N | | | | N | | | N | N | | | | | | |
| | | T=Outside Move | N | N | N | N | N | | N | | N | N | N | | | | |
| | | L=Seasonal Suspend | N | N | N | | N | | N | | N | | | | | | |
| | | Y=Deny | N | N | | N | N | | | N | N | | N | | | | |
| | | B=Restore | N | N | N | N | N | | N | N | N | | N | | | | |
| | | R=Record | | | | | | N | | | | | | | | | |
| | | M=Inside Move | | | | N | | | N | | | | N | | | | |

## Developer Worksheet Legend

A. This is the field reference number that corresponds to the associated EDI mapping field. On Order and Post-Order worksheets, the field number corresponds to the LSOG field number. For instance, if the value from the Qwest Developer Worksheet is LSR-7, then the user could reference the OBF Guideline for the LSR form, field 7, for additional information. However, if the reference number is a number followed by a letter, such as LSR-7a, the field is a Qwest specific field and will not be found in the LSOG.

B. This is the name of the field from the LSOG or as defined by Qwest, and, if applicable, the associated Qwest EDI Mapping. It will be in bold and italicized text on the EDI Mapping.

C. Action Type: This field defines the actions (activities) that are valid for the transaction or product.

D. The indicators found here signify whether the field is required (R), conditional (C), optional (O), prohibited (P), or not applicable (N). A required field (R) must be present for the transaction to be valid. A conditional (C) field indicates that the field's population is based upon specific business rules as defined in the worksheets and/or LSOG. Optional (O) means the transaction will still be valid even if this field is not populated. Prohibited (P) means that population/use of that field is not allowed for certain situations defined in the business rules and will result in a system (BPL) reject. Not applicable (N) means that this field is not used for the given activity. If the indicator is (N) for all activities, Qwest does not map the field and will return a –997 if populated.

E. The Negotiated Business Rules field defines the Qwest business rules. If this field is blank, consult the LSOG for the appropriate business rules. Otherwise, the rules specified in this field take precedence over those in OBF.

F. Field length dictates the accepted data length for that field.

G. Field Characteristics denote the appropriate data type for the field. Valid formats include
A=Alpha, N=Numeric, and A/N=Alphanumeric (allows for alpha, numeric, or a combination of characters, to be used unless otherwise stated in the business rules for that field).

H. Valid Values identify any specified values or formats for the field.

# *Appendix A*

## Comparison of Stand-Alone Testing (Regression) and Progression Testing via Interoperability -vs- Stand-Alone Environment

| **IMPLEMENTATION AREAS** | **PROGRESSION**<br>**Interoperability Environment** | **PROGRESSION**<br>**Stand Alone Environment** | **REGRESSION**<br>**Stand Alone Environment** |
|---|---|---|---|
| **Initial Communication** | SAME* | SAME* | SAME* |
| **Kickoff Call** | SAME* | SAME* | SAME* |
| **Security** | SAME* | SAME* | SAME* |
| **Connectivity** | SAME* | SAME* | SAME* |
| **Negotiation** | Project Plan | Project Plan | Usage Plan |
| **Support Team** | IPM;BA; TSE | IPM; BA; TSE | IPM, BA, TSE through Negotiations phase then via e-mail within 5 business days of e-mail |
| **Progression Testing Phase** | | | |
| Scenario Summary | CLEC indicates intended scenarios and receives guidance and approval of the Summary before completing the scenario templates | CLEC indicates intended scenarios and receives guidance and approval of the Summary before submitting EDI transactions or Orders | NONE<br>SATE user indicates desired scenario volume/types and schedule in Usage Plan – must be approved by Qwest |
| Scenario Data | CLEC supplies all data and populates valid values as required by Qwest business rules | Qwest provides valid values for specific fields via the IMA EDI SATE Data Document; CLEC selects valid values and integrates them with user-supplied data in submitted scenarios | Qwest provides valid values for specific fields via the IMA EDI SATE Data Document; CLEC selects valid values and integrates them with user-supplied data in submitted scenarios |
| Scenario Templates | CLEC populates Qwest scenario templates; Qwest provides redlines/comments; CLEC corrects until approved | NOT USED<br>CLEC submits EDI transactions | NOT USED<br>SATE user submits EDI transactions |
| | | | |

| **IMPLEMENTATION AREAS** | **PROGRESSION**<br>**Interoperability Environment** | **PROGRESSION**<br>**Stand Alone Environment** | **REGRESSION**<br>**Stand Alone Environment** |
|---|---|---|---|
| Testing Process | CLEC submits approved scenarios to Interoperability environment | CLEC creates/submits scenarios to SATE environment until successful and notifies Qwest of successful PONs | SATE user creates and submits scenarios; reviews the responses; corrects and resubmits until successfully processed |
| EDI Response | Provided by TSEs<br>Qwest provides responses as negotiated in the Project Plan | Provided by TSEs and VICKI<br>Qwest provides responses automatically through VICKI function.<br>See SATE VICKI Path Document for further information. | Provided by TSEs and VICKI<br>Qwest provides responses automatically through VICKI function.<br>See SATE VICKI Path Document for further information |
| Testing Calls | As scheduled in Project Plan | As scheduled in Project Plan | NONE |
| Testing Success | Monitored and verified by Qwest TSE during Test Calls with CLEC | CLEC corrects/submits scenarios until successful and notifies Qwest of PONs to be used for documenting correct testing success; Qwest verifies user-indicated PONs/INQNUMs as successful and indicates successful completion on the Scenario Summary | Determined by SATE user. |
| Number of Transactions Permitted | As negotiated in Project Plan | As negotiated in Project Plan | As negotiated in Usage Plan |
| Technical Support | CLEC is provided technical support as negotiated in the Project Plan | CLEC is provided technical support as negotiated in the Project Plan | Technical support provided via e-mail<br>FAQs posted on website |
| Controlled Production | SAME* | SAME* | Not Applicable |

**(* Requirements are same as in adjacent column marked SAME* - see requirement details in this Guide)**

NOTE: Before entering the Controlled Production Phase, TPR configuration verification (TCV) is required for those transactions being implemented.

*Appendix B*

# Service Bureau
# EDI Implementation Guidelines

May 7, 2002

Version 3.0

# Version Updates:

Version 1.0 – Original Version
Version 2.0 – Incorporates Stand Alone Test Environment (SATE) references
Version 3.0 - Defined Trading Partner Configuration Verification testing (TCV) and clarifies circuit sharing LOA requirements. Changed ‘Co-Provider’ to ‘CLEC’

# Objective:

This document will establish Qwest’s definition of a service bureau from a service and product perspective in relation to the sending and receiving of data with Qwest’s IMA and FBDL EDI systems. In addition, this document will provide the criteria for the implementation and operating procedures for CLECs using IMA and FBDL EDI, and the Service Bureaus that support them.

# Contents:

**I.** Definition of a Service Bureau
**II.** The Role of the CLEC
**III.** Service Level Agreements
**IV.** CMP Participation
**V.** Qwest Release Sunrise/Sunset Dates
**VI.** Requirements Review
**VII.** Physical Connectivity
**VIII.** EDI Progression Testing Process
  (a) New Product Implementation Testing Requirements
  (b) Release Migration Testing Requirements
**IX.** Production Support/Help Desk

TABLE A: Summary – Role of the Service Bureau in a CLEC Implementation

TABLE B: Progression Testing Requirements for Service Bureau Implementations

## *Definition of a Service Bureau:*

Qwest considers a third party vendor to be a Service Bureau when the following criteria are met:

1. The third party vendor uses the same IMA and FBDL EDI mapping software, version, and configuration for all CLECs actively using its software in production.
2. The third party has a signed Letter of Agency (LOA) between themselves and each CLEC. Qwest must receive a copy of the LOA prior to conducting weekly IMA and FBDL EDI Implementation meetings with a CLEC and its Service Bureau.
3. The third party vendor must have more than one CLEC implementing or in production with IMA and FBDL EDI on a single release of IMA and FBDL EDI.
4. The third party vendor must have a single, dedicated circuit in place between their central location and Qwest, which must be used by all CLECs with that Service Bureau.

   If the CLEC will be accessing another circuit not owned by the service bureau then a separate blanket LOA is required from the circuit owner authorizing the Service Bureau use of their circuit before placing a CLEC into production.
5. The third party vendor must obtain a unique, signed-authorized digital certificate for each CLEC using the Service Bureau. *[Please refer to the requirements of TCIF/ Authorizing Agency for further explanation regarding the use of digital certificates.]*
6. The third party vendor ensures that each CLEC working with the Service Bureau has either:
   - A unique port assignment on a common IP for each CLEC, or
   - A unique IP for each CLEC, with each CLEC utilizing ports identified by the standard designation (6998 and 6999).

Qwest does not have an agreement with the Service Bureau and therefore must treat the CLEC utilizing a Service Bureau as an individual entity. However, the Service Bureau is an Agent for the CLEC and acts on behalf of the CLEC for the CLEC's initial Qwest EDI implementation, as well as all subsequent release migrations or new product implementations, for as long as the LOA is in effect. Again, the CLEC and the Service Bureau must both sign the LOA and provide Qwest with a copy of this fully signed LOA.

## *The Role of the CLEC:*

The CLEC must make initial contact with Qwest's IMA and FBDL EDI Implementation Team directly. Upon the CLEC's completion of the Initial Contact Questionnaire and Qwest's receipt of a signed LOA, the Service Bureau acts on behalf of the CLEC during their implementation effort. However, the CLEC must be present for all Kickoff and Readiness Assessment calls, must participate in the development and finalization of an agreed upon project implementation plan, and must be present for all subsequent discussions related to revision of the project plan. In addition, the CLEC conducts all Controlled Production activities from their facilities.

The following sections elaborate on the IMA and FBDL EDI specific implementation areas. Additionally, TABLE A summarizes the role of a Service Bureau during a CLEC's implementation.

## *Service Level Agreements:*

Outside of the Qwest Interconnect Agreement, Qwest does not maintain separate service level agreements with CLECs, nor will Qwest have a service level agreement with any Service Bureau directly. However, a CLEC may have specific contractual date and time frames for service delivery stated in their Interconnection Agreement with Qwest. In this situation, those contractual date and time frames for service extend to the Service Bureau, who is acting as an Agent for the CLEC.

## *CMP Participation:*

While Service Bureaus do not have voting rights in the CLEC Industry Change Management Process forum (CMP), Service Bureaus are welcome to attend CMP meetings and participate in this forum. Additionally, CLECs may solicit advice from their Service Bureau regarding their CMP votes at any time.

## *Qwest Release Sunrise/Sunset Dates:*

In an effort to avoid impact to Qwest's release dates and to provide parity amongst CLECs, Qwest's IMA EDI Release sunrise and sunset dates will be the same for CLECs whether or not they utilize a Service Bureau arrangement. These release dates are published on the CMP web page located on Qwest's Wholesale web-site at http://www.qwest.com/wholesale/cmp/calendar.html.

## *Requirements Review:*

Qwest expects that the CLEC will be aware of Qwest's business rules and processes associated with ordering various product types. Qwest also expects that the Service Bureau will define the processes and business rules that apply to their software, which will affect the CLEC, and will keep the CLEC informed of these impacts.

## *Physical Connectivity:*

The Service Bureau's circuit will provide for a secure network to send and receive data between Qwest and the CLEC, as well as providing an efficient means to transport high volumes of data. This circuit must terminate in either Qwest's Denver (Zuni) or Omaha Data Centers. For redundancy purposes, a Service Bureau may install a circuit at both data center locations. Access to the Qwest network is granted from the external registered IP addresses on this circuit through to the Qwest firewall. Please refer to the "EDI Implementation Guidelines" for further technical information on connectivity.

## *EDI Testing Process:*

The EDI testing process must address two considerations: (1) New Product Implementations and (2) Release Migrations. The testing requirements for these two efforts are addressed in this section. Additionally, TABLE B serves to provide a high-level summary of Service Bureau progression testing requirements for New Product Implementation and Release Migrations.

The Service Bureau may use a **Lead** CLEC to test the products and activity types that the Service Bureau plans to offer to all CLECs subsequent to the Lead CLEC (herein referred to as the ***subsequent*** CLEC). The **Lead** CLEC tests for the first time a unique set of products and activity types for a given release in the Qwest Interoperability environment and/or Stand Alone Test

Environment (SATE), as described below [see Progression Testing Phase (Interoperability and/or SATE)]. Following this testing, the **Lead** CLEC will perform Controlled Production for specific products/activities.

All ***subsequent*** CLECs wishing to implement the **Lead** CLEC's tested products/activity types have the option to progression test these products, as noted below [see Progression Testing Phase (Interoperability and/or SATE)]. If this testing is skipped, the ***subsequent*** CLECs must perform Trading Partner Configuration Verification (TCV), also noted below. After the Lead CLEC completes the exit criteria in the Controlled Production Readiness Assessment, any ***subsequent*** CLEC using the Service Bureau's same products/activity types may move directly into Controlled Production, as applicable for the given testing process.

A Service Bureau may use multiple **Lead** CLECs for testing different products or use one **Lead** CLEC for all product testing. Regardless of the number of **Lead** CLECs utilized, the testing phases required for CLEC implementations are the same as those used for a non-Service Bureau implementation. *[For further explanation of these phases, please refer to the Qwest "EDI Implementation Guidelines" document.]*

## (1) New Product Implementations:

This section identifies the requirements for new product implementation testing that are unique to a Service Bureau arrangement, highlighting the differing roles of the **Lead** CLEC and ***subsequent*** CLECs.

Firewall/IA-to-IA Testing Phase:

- This testing is required for both the **Lead** and ***subsequent*** CLEC.
- This testing can be performed with Qwest from the Service Bureau site or the CLEC's location.
- This testing will be performed in the Interoperability and/or SATE environment, as well as in the Production environment.

Progression Testing Phase (Interoperability or SATE):

- The **Lead** CLEC's progression testing can be performed with Qwest from the Service Bureau site or the CLEC's location. If progression testing is performed from the Service Bureau site, the Service Bureau must use the CLEC's Trading Partner configuration that will be used in production.
- Any ***subsequent*** CLEC may choose to Progression test in the Interoperability and/or SATE environment; however, this is not a requirement.
- Any ***subsequent*** CLEC Progression Testing in either Interoperability and/or SATE environments may be performed from the Service Bureau or CLEC's site.

*Trading Partner Configuration Verification (TCV):*

- This configuration verification is not applicable to the **Lead** CLEC when their Trading Partner Relationships are verified, as part of the Progression Testing Phase in either Progression Test environment.

- This verification is applicable to ***subsequent*** CLECs who opt not to test in a Progression Test environment. This will validate Qwest's Trading Partner Relationship (TPR) set up prior to exporting the TPRs to Qwest's production environment.
- This verification is performed in either SATE or Interoperability Test environment and entails testing one successful transaction per line item on the CLEC's TPR Worksheet. One order transaction plus one supplemental Order transaction must pass Qwest's Business Process Layer (BPL) to verify the Order responses, which allows Qwest to confirm the TPR configuration.
- This verification can be performed from either the Service Bureau or CLEC's location, but must be progression tested using the CLEC's TPR data.
- No Scenario Summary or progression test scenario documents are required for this verification. The TPR Worksheet will outline the transactions required.

Controlled Production Phase:

- Every CLEC must perform Controlled Production from the CLEC's location. The Service Bureau cannot perform this effort.
- As stated previously, any ***subsequent*** CLEC may begin Controlled Production when the **Lead** CLEC testing the same product/activity has completed the Progression Testing exit criteria in the Controlled Production Readiness Assessment (that is, the **Lead** CLEC has exited the Progression Testing Phase).

## (2) Release Migrations:

The determination of the necessity to re-certify a product will be made by Qwest and specified in Qwest's release-specific Recertification memo, which will be provided to all CLECs with the issuance of Disclosure. The complexity and number of tests necessary will be based upon the complexity of changes to the release. If there are no changes to a product for a release, recertification of that product is not required, but may be tested at the CLEC's discretion.

To re-certify a product, the Service Bureau must perform a suite of tests in either Interoperability or SATE with their **Lead** CLEC and Qwest; however, recertification does not require Controlled Production for any migration regardless of whether a CLEC uses a Service Bureau. This section identifies the process requirements for release migration testing that are unique to a Service Bureau arrangement, highlighting the differing roles of the **Lead** CLEC and ***subsequent*** CLECs.

Firewall/IA-to-IA Testing Phase:

- This testing is not required for either the **Lead** or ***subsequent*** CLEC, unless their Interactive Agent (IA), Trading Partner (TP) Name or Firewall Rules change.
- If required, this testing can be performed with Qwest from the Service Bureau site or the CLEC's location.
- If required, this testing will be performed in the SATE and/or Interoperability test environment and the Production environment.

Progression Testing Phase (Interoperability or SATE):

- The **Lead** CLEC will need to test those products that Qwest determines need recertification, as noted above, and will follow the **Lead** CLEC process described under "(a) New Product Implementation Testing Requirements – Progression Testing Phase (Interoperability and/or SATE)".
- Any ***subsequent*** CLEC may choose to test in SATE and/or the Interoperability environment; however, this is not a requirement.
- Any ***subsequent*** CLEC Progression Testing in either Interoperability and/or SATE may be performed from the Service Bureau or CLEC's site.

*Trading Partner Configuration Verification (TCV):*

- This configuration verification is applicable to the **Lead** CLEC for each product change on the TPR Worksheet when that product does not require recertification by Qwest. For products requiring recertification, this verification is not applicable to the **Lead** CLEC who tested in the SATE and/or Interoperability test environment, as their Trading Partner Relationships were verified as part of this testing phase.
- This verification is applicable to ***subsequent*** CLECs who opt not to re-certify products through testing in a test environment. This will validate Qwest's Trading Partner Relationship (TPR) set up prior to exporting the TPRs to Qwest's Production environment.
- If required, each ***subsequent*** CLEC must test one successful transaction per line item on the CLEC's TPR Worksheet. One order transaction plus one supplemental Order transaction must pass Qwest's Business Process Layer (BPL) to verify the Order responses, which allows Qwest to confirm the TPR configuration.
- This verification is performed in a test environment, whenever possible. Please be aware that if the TCV cannot be performed in a test environment, a five-day interval for TPR changes applies in Production.
- This verification can be performed from either the Service Bureau or CLEC's location, but must be tested using the CLECs TPR data.
- No Scenario Summary or test scenario documents are required for this verification. The TPR Worksheet will outline the transactions required.

## *Production Support/Help Desk:*

It is strongly recommended that a Service Bureau have an established Help Desk process to support CLECs with production issues. Qwest is willing to assist Service Bureaus with establishing processes and guidelines that are consistent with Qwest's established Production and Help Desk support processes. Qwest's current help desk process allows a Service Bureau to work directly with its Wholesale Systems Help Desk (that is, represent the CLEC in lieu of the CLEC's participation in help desk calls). As a result, Qwest strongly encourages CLECs to complete the CLEC Trouble Shooting Guide with both CLEC and Service Bureau points of contact for emergency, weekend, holiday, and after-hour production support issues.

## *Summary – Role of the Service Bureau in a CLEC Implementation*

| IMPLEMENTATION AREAS | A SERVICE BUREAU'S ROLE… |
|---|---|
| Service Level Agreements | The Service Level Agreement is located within Qwest's Interconnect Agreement for CLECs. Neither a Service Level Agreement nor an Interconnect Agreement exists between a Service Bureau and Qwest; however, Qwest and the CLEC will have a signed Interconnect Agreement. Additionally, the Service Bureau must have a signed Letter of Agency (LOA) between themselves and each CLEC. |
| CMP Participation | Service Bureaus do not have voting, CR issuing or prioritization rights in CMP; however, are welcome to attend and participate in CMP meetings. Additionally, CLEC may solicit advice from their Service Bureau regarding their CMP votes at any time. |
| Release Sunrise/Sunset dates | This process follows the Qwest documented process *(see "EDI Implementation Guidelines")*. |
| Requirements Review | Service Bureaus should perform a review of Qwest's requirements, keeping CLECs informed of all impacting changes. Additionally, Qwest expects that the CLEC will review all business processes and business rules associated with ordering various product types. |
| Firewall/IA to IA (Connectivity) | Two options are available to Service Bureaus:<br>• One IP address with unique port assignments for each CLEC, or<br>• Unique IP addresses for each CLEC using the same standard ports (6998 and 6999) for all CLECs on the Service Bureau.<br>Additionally, Service Bureaus are required to have a unique, signed-authorized digital certificate for each CLEC.<br>Qwest relies on the Service Bureau to stop unauthorized transactions being submitted to CLECs since all CLEC transactions are transmitted across the same IP address. The Service Bureau must differentiate messages by Trading Partner ID to accomplish this goal. |
| EDI Progression Testing Process | Refer to TABLE B "Testing Requirements for Service Bureau Implementations" within this document. |
| Production Support/Help Desk | Service Bureaus may place calls to Qwest's Wholesale Systems Help Desk on behalf of CLECs *(see EDI Implementation Guidelines for further details on the overall process).* |

# New Product Implementations

## Progression Testing Phase (Interoperability and/or SATE environment):

| | **Firewall/IA to IA** | **TCV** | **New Products/Activity Types** |
|---|---|---|---|
| **Lead** CLEC | Testing required | Not Applicable | Testing required; see minimum testing requirements [1] |
| ***Test Parties:*** | Qwest to Service Bureau | Not Applicable | Either Qwest to CLEC or Qwest to Service Bureau |
| ***Subsequent*** CLECs | Testing required | Testing is required unless the CLEC decides to test in either the Interoperability and/or SATE environments. | Testing is optional when implementing a product that has already been tested and in production by a lead CLEC. |
| ***Test Parties:*** | Qwest to Service Bureau | Qwest to Service Bureau or<br>Qwest to CLEC | Qwest to CLEC |

## Controlled Production Phase:

| | **Firewall/IA to IA** | **TCV** | **New Products/Activity Types** |
|---|---|---|---|
| ***Lead*** CLEC | Testing required | Not Applicable | Testing required; see minimum testing requirements 1 |
| ***Test Parties:*** | Qwest to Service Bureau | Not Applicable | Qwest to CLEC |
| ***Subsequent*** CLECs | Testing required | Not Applicable | Testing required; see minimum testing requirements 1 |
| ***Test Parties:*** | Qwest to Service Bureau | Not Applicable | Qwest to CLEC |

Footnotes:

[1] Refer to the "EDI Implementation Guidelines" document for minimum test scenario requirements.

# Release Migrations

## Progression Testing Phase (Interoperability and/or SATE environment):

| | **Firewall/IA to IA** | **TCV** | **Existing Qwest EDI Certified Products** |
|---|---|---|---|
| **Lead** CLEC | Testing not required, unless the Firewall, IA or the TP Name changed. | *Not Applicable* | Testing required; see Qwest's release specific Recertification memo [1] |
| ***Test Parties:*** | Qwest to Service Bureau | *Not Applicable* | Qwest to Service Bureau |
| ***Subsequent*** CLECs | Testing not required, unless the Firewall, IA or the TP Name changed. | Testing required, if CLEC opts not to test in the either Interoperability and/or SATE test environments. | Testing optional |
| ***Test Parties:*** | Qwest to Service Bureau | Qwest to CLEC or Qwest to Service Bureau | *Not Applicable* |

Footnotes:

[1] Refer to the Qwest's release specific Recertification memo for a determination of the products

# *Appendix C*

# *Qwest's EDI Implementation*
# *Staff Plan and Organizational Information*

**January 21, 2002**

**Version 1.00**

## Version Notice

## Document History

All revisions made to this document are listed here in chronological order.

| **Version** | **Date** | **Description** |
|---|---|---|
| 1.00 | 01/21/02 | Initial Distribution |

## Document Ownership

Qwest Communications, Inc. (Qwest)
Implementation Team

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## Abstract

The purpose of this document is to define the roles and responsibilities for the IMA EDI Implementation Team, in addition to a staff planning for the organization.

## Document Information

This document has been through a formal review process. To the best of our knowledge, it is accurate. Qwest Communications, Inc. reserves the right to make further modifications, as necessary.

## Trademarks

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# Introduction

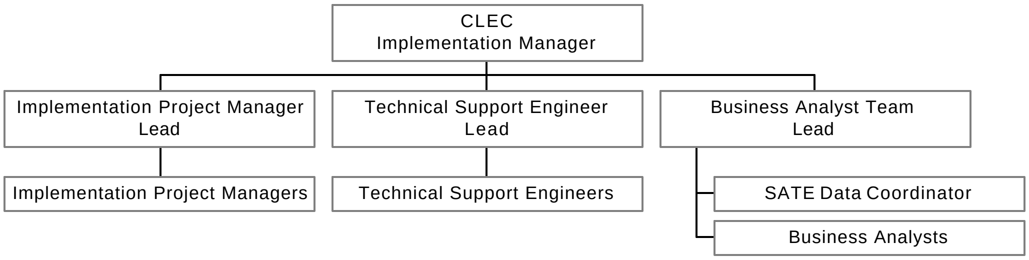
### Purpose of Document

This document is designed to provide an overview of Qwest staffing plans and resource utilization for the IMA EDI Implementation Team. The scope of this document includes support for all Qwest EDI environments (SATE, Interoperability, and Production). As an example, SATE represents only one environment in which a CLEC, Service Bureau, or software vendor may regression test (Regression) with the Qwest IMA EDI system or a CLEC may certify for actual EDI Implementation of a given IMA release (Progression). However, SATE resources and staff planning are an integral part of the overall IMA EDI Implementation Team and should not be viewed as separate from that organization.

# Organizational Overview

The following chart represents each organization directly involved in interfacing with CLECs for EDI Implementation. This chart illustrates the three groups that comprise the IMA EDI Implementation Team.

Chart 1 – IMA EDI Implementation Team


CLEC
Implementation Manager
Implementation Project Manager Lead
Technical Support Engineer Lead
Business Analyst Team Lead
Implementation Project Managers
Technical Support Engineers
SATE Data Coordinator
Business Analysts

# EDI Staffing Plan

### Forecasting & Planning for Adequate Staff

Qwest management evaluates the current number of CLECs and other third parties implementing or using IMA EDI, and any others who express an interest, on a regular basis. This evaluation includes an assessment of the level of effort required for each CLEC based on factors such as number of products implemented, existing CLEC EDI experience, whether effort is a new implementation or a migration, etc. When a CLEC contacts Qwest with an interest in an IMA EDI implementation, each of the area leads along with the Qwest manager, addresses the current assignments, level of effort planned for each CLEC implementing or in production for IMA EDI, and does an assessment of assignments and work loads. Leads and their managers meet on a weekly basis to discuss resource assignments and to review work-load balancing.

If an increase in personnel in the EDI Implementation Team is deemed necessary, Qwest will bring on personnel, as appropriate. The normal training time for personnel is two to four weeks before they are able to work unsupervised with CLECs. Personnel are trained in all aspects of the roles on their team in order to back up other personnel within that role. Additionally, each person has a formal performance appraisal process utilizing the job descriptions in the Roles and Responsibilities section below to develop their goals and objectives.

Using the existing evaluation processes, employees are evaluated quarterly based on these goals and objectives. If performance to a goal/objective is not satisfactory for a given employee, appropriate measures are taken, including coaching and additional training. Each employee's performance is fed into the current assignment and staffing plan to ensure CLEC needs are being met.

**Forecast for 2002, Quarters 1 & 2**

As of the initial publication of this Appendix, Qwest currently staffs 5 Implementation Project Managers, 9 Technical Support Engineers, 7 Business Analysts and 2 SATE Data Coordinators who work with CLECs and other third parties to implement IMA EDI. This staffing level currently supports 25 CLECs: 2 represent new implementations and 13 are in already production where 10 are currently undergoing migration to a new release. Each EDI Team member role identified within the IMA EDI Implementation Guide is further explained in the detailed job descriptions provided below. The job descriptions apply across any environment used to implement or test IMA EDI (i.e. SATE, Interoperability, or Production). Note that duties pertaining to the SATE environment do not include scenario template review and approval.

Qwest anticipates the staffing levels for the first two quarters of 2002 will remain the same, with an evaluation of the automatic processing for SATE completed during the first quarter, as described below in the TSE job description. As a result, Qwest believes that the level of staffing today on the IMA EDI Implementation team is sufficient to support all current and forecasted efforts through second quarter 2002.

# Roles and Responsibilities

The following table details the roles and responsibilities for the SATE organizations and resources depicted in the organizational structure in the previous section of this document. In addition, information concerning the organization's vision and mission statements are included, as well as goals, objectives and methods of accountability for each job title.

**Organization: EDI Implementation Team**

**Vision Statement: The 271 BSD District will provide world class technology solutions, which enable local competition, provide excellent service to Wholesale customers, and position Qwest to compete globally by offering bundled services, including long distance.**

**Mission Statement: The 271 BSD District will enable Qwest to provide robust customer care, billing, maintenance and repair services to our Wholesale customers, equip the Interconnect Service Center with effective mechanized solutions, and re-enter the long distance market.**

| Job Title | Job Description | Roles & Responsibilities | Goals & Objectives | Methods for Accountability |
|---|---|---|---|---|
| Implementation Project Manager (IPM) | The IPM is responsible for planning, tracking and guiding a CLEC EDI implementation throughout its lifecycle. The IPM will support the Business Analyst and Technical Support Engineer during a CLEC implementation, as necessary. | • Receives communication that a CLEC, Service Bureau or software vendor wishes to use the SATE for regression testing<br>• Facilitates the weekly implementation team meetings<br>• Develops the Project Plan, incorporates the CLECs suggestions, and updates the plan regularly<br>• Takes meeting minutes during the weekly implementation team conference calls and publishes to the CLEC and Qwest team weekly meeting participants.<br>• Coordinates and facilitates a SATE Regression testing kick-off meeting with the CLEC, Service Bureau or software vendor<br>• Archives Usage Plan at end of regression test<br>• Update Project Plan and ensure milestones are met | • Successfully plan, track and guide CLEC EDI Implementations and Migrations to new releases through their lifecycles.<br>• Successfully complete the roles and responsibilities defined for all assigned CLECs.<br>• Provide support to additionally assigned non-CLEC EDI users. | • Follow Qwest standard HR policies, including<br>– quarterly objective setting<br>– quarterly performance reviews<br>– action plans, if required<br>– iterative adjusted quarterly objective setting<br>– annual performance reviews |

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| Job Title | Job Description | Roles & Responsibilities | Goals & Objectives | Methods for Accountability |
|---|---|---|---|---|
| | | • Distribute current copy of the Test Status Log one day prior to the weekly implementation team meeting | | |
| Business Analyst (BA) | The BA is responsible for supporting a CLEC implementation in many roles such as supporting the CLEC with their requirements review, answering business rule and order processing questions, as well as reviewing and approving the Test/Certification Scenario Summary, as appropriate. | • Supports the CLEC with the requirements review<br>• Facilitates the discussions pertaining to Qwest IMA EDI requirements and processes<br>• Forwards to the CLEC the Scenario Summary, Scenario Templates (interoperability environment), the Question Log template, the Frequently Asked Questions Document, the Error List, and if applicable, the FBDL Scenario Data Document, the SATE Data Document, the draft developer worksheets, and the draft candidate list.<br>• Provides the CLEC with answers to the CLEC's business related questions during the weekly CLEC meetings<br>• Forwards any technical questions from the Questions Log to the TSE and any account questions to the Service Manager as appropriate<br>• Provides input to the Project Plan<br>• Provides the SATE Data Document for SATE users, including updated | • Successfully support CLEC implementations and migrations related to all business related information.<br>• Successfully complete the roles and responsibilities defined for all assigned CLECs.<br>• Provide support to additionally assigned non-CLEC EDI users. | • Follow Qwest standard HR policies, including<br>– quarterly objective setting<br>– quarterly performance reviews<br>– action plans, if required<br>– iterative adjusted quarterly objective setting<br>– annual performance reviews |

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| Job Title | Job Description | Roles & Responsibilities | Goals & Objectives | Methods for Accountability |
|---|---|---|---|---|
| | | documents as revisions are released<br>• Respond to questions regarding Qwest business rules – sending response both to the requester and the SDC for archival<br>• Review the Test Scenario Summary and Scenarios (for interoperability environment users)<br>• Provides the SATE Data Document for SATE users<br>• Provide comments to the CLEC for the Test Scenario Summary and Scenarios (for interoperability environment users)<br>• Provides support to the TSE during the testing phase | | |
| Technical Support Engineer (TSE) | The TSE is responsible for supporting a CLEC implementation in many roles such as facilitating Test/ Certification testing calls, setting up of the Interactive Agent (IA) and security, and providing the technical support a CLEC might require during its implementation. | • Forwards the completed External IP Addressing Worksheet to the IT I&D Team.<br>• Configures the EDI translator and transport applications in the interoperability or SATE environment<br>• Completes the Firewall Rule Worksheet Template with the IP addresses provided on the External IP Addressing Worksheet and forwards the document to the Production SPOC who forwards to the Infrastructure / Security Team for both the interoperability or | • Successfully support CLEC implementations and migrations regarding all technical aspects of EDI.<br>• Successfully complete the roles and responsibilities defined for all assigned CLECs.<br>• Provide support to additionally assigned non-CLEC EDI users. | • Follow Qwest standard HR policies, including<br>– quarterly objective setting<br>– quarterly performance reviews<br>– action plans, if required<br>– iterative adjusted quarterly objective setting<br>– annual performance reviews |

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| Job Title | Job Description | Roles & Responsibilities | Goals & Objectives | Methods for Accountability |
|---|---|---|---|---|
| | | SATE and production environments<br>• Once Interoperability/SATE testing validates the TPR configuration and other system configuration items, the TSE completes the Export / Import TPR Template and forwards it to the production SPOC and provides the production SYADS with the documentation required to configure the production environment<br>• Review the work completed by the IT I&D, Infrastructure / Security, Firewall and production SYAD teams<br>• Communicate the completion dates of his or her assigned activities to the IPM<br>• Schedules and conducts IA to IA connectivity test<br>• Supports any discussions pertaining to IMA EDI technical aspects (i.e., Mapping Examples and Data Dictionaries)<br>• Answers any technical questions from the Questions Log and returns them to the BA or provides them to the CLEC during the weekly call<br>• Provides input to the Project Plan<br>• Initiates the preliminary | | |

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| Job Title | Job Description | Roles & Responsibilities | Goals & Objectives | Methods for Accountability |
|---|---|---|---|---|
| | | discussions regarding the connectivity requirements<br>• Forwards to the CLEC the Trading Partner Identification Worksheet and the External IP Addressing Worksheet templates<br>• Respond to technical questions for SATE environment – sending response both to the requester and the SDC for archival<br>• Activate and inactivate the CLEC's TPR in the SATE environment<br>• Reviews the Usage Plan for SATE regression users<br>• Facilitate the user's regression test by providing required and requested responses to the users during regression testing<br>• Coordinate the test calls<br>• Provides technical support for the test calls<br>• Update the Test Status Log with each day's testing results details<br>• Notify the IPM when the Test Status Log is ready for distribution the day prior to the weekly implementation team meeting<br>• Complete the Test Status Log with the test results and dates completed prior to the Controlled Production Readiness Assessment Call | | |

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| Job Title | Job Description | Roles & Responsibilities | Goals & Objectives | Methods for Accountability |
|---|---|---|---|---|
| SATE Data Coordinator (DC) | | • Identify, write, open, track, verify resolution and close Change Requests (CRs) discovered by or impacting the Business<br>• Draft and maintain SATE data document and processes<br>• Check SATE mailbox daily, process CLEC requests, answer CLEC questions and/or forward messages on to appropriate SATE team<br>• Process Data Requests for CLECs | • Successfully maintain the SATE mailbox.<br>• Accurately maintain and enhance the SATE Data Document.<br>• Process CLEC SATE data requests accurately and timely. | • Follow Qwest standard HR policies, including<br>– quarterly objective setting<br>– quarterly performance reviews<br>– action plans, if required<br>– iterative adjusted quarterly objective setting<br>– annual performance reviews |