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**LSR Implementation Guidelines**

**EASE UOM XML Interfaces**

Document Release Date: August 2018

**Document Information**

**History**

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

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| Version | Date | Description |
| 1.0 | August 2018 | Initial |
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**Important:** This document has been through a formal review process. To the best of our knowledge it is accurate. CenturyLink Communications, Inc. reserves the right to make further modifications when necessary.

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# Introduction

## Purpose

The purpose of this document is to provide a guideline for implementation of the Local Service Request (LSR) Unified Ordering Model (UOM) with CenturyLink. This document shall outline the process reflecting the order in which events are expected to occur including but limited to:

* Who to contact if you need help
* How communication will occur between CenturyLink and your company
* What basic requirements are needed to get started
* Document of the specifications your company should meet to implement UOM
* Test Strategy and Planning
* Implementation

Business rule documentation is located on the CenturyLink EASE Home page: <http://ease.centurylink.com/>

Then Click on GUIDE and in the drop down select LSR and then in its dropdown CenturyLink 2Q14 Files

## Audience

This document is intended for organizations and customers wishing to implement trading capabilities with CenturyLink for the exchange of Order and Pre-Order capabilities via the Electronic Administration & Service Exchange (EASE) interface.

## Scope

This document provides a general overview of the Electronic Administration & Service Exchange (EASE) interface processes. Additional information and documentation will be provided during implementation support meetings. The information in this document applies to the use of the Electronic Administration & Service Exchange (EASE) interface and should not be construed as being applicable to other electronic interfaces available from CenturyLink.

## Implementing EASE interface

If you determine that your company can support an EASE interface environment and you would like to conduct business with CenturyLink via EASE interface, contact your CenturyLink Service Manager (SM) for a referral to a CenturyLink Implementation Project Manager (IPM).

### EASE interface

The use of the EASE interface provides an effective mechanism to automate the communication and processing of LSR ordering information. The LSR Implementation Process will progress according to an agreed upon plan and timeline. The typical project phases for CLEC/IXC/WSP’s implementing a current LSOG release will include:

1. **Initial Communications:** During this phase, all activities to initiate a CLEC/IXC/WSP’s implementation are discussed, and the kickoff conference call is held to introduce specific team members.
2. **Implementation Project Plan or Industry Upgrade Test Plan Negotiation:** During this phase, the Implementation Project Plan or Migration Test Plan is proposed, negotiated and approved.

1. **Requirements Review:** The Requirements Review phase provides an opportunity for a CLEC/IXC/WSP to review CenturyLink’s Business Rules Differences Lists for pre-order and order and ask any questions they may have regarding those requirements.

1. **Establishing Connectivity Testing:** During this phase, the CLEC/IXC/WSP’s connectivity is established and tested. This phase is used to establish that an internet connection can be facilitated to send and receive transactions using web services. Note: Based on the OBF schedule to retire Batch Process, CenturyLink will not add any new batch customers.
2. **New Implementation/Industry Upgrade Testing**: This phase affords the CLEC/IXC/WSP the opportunity to validate their technical development efforts and to quantify LSR processing results. CenturyLink provides an environment for testing the EASE interface functionality.
3. **Production:** The CLEC/IXC/WSP moves to production once testing is completed, or

when the Industry LSOG upgrade occurs. With new implementations, the IPM will support

the customer for one week after production turn-up.

### LSR Pre-Order Capabilities

Sending accurate and complete information is critical for the successful processing of LSR ordering transactions. CenturyLink strongly advises the use of their pre-order services to provide this information to the CLEC/IXC/WSP prior to submitting an order transaction. CenturyLink provides the EASE UOM XML interface.

### Virtual Front Office (VFO)

EASE VFO is an online application GUI that provides Wholesale customers the ability to submit LSR order and pre-order transactions to CenturyLink over the internet. Because this is a GUI application, form and field edits are performed upfront giving the user an opportunity to correct any errors before the transaction is submitted. Responses are returned to the customer’s GUI in real time.

Information on how to get access will be found on the CenturyLink Wholesale Business website at <http://www.centurylink.com/wholesale/systems/ossconsolid_lsr.html> .

Documentation specific to the EASE GUI on this site will include:

* LSR EASE GUI Customer Administrator's Guide
* LSR EASE GUI User's Guide
* LSR EASE GUI Training

For additional EASE GUI information not contained in this documentation, please call your service manager.

EASE provides an efficient web services interface for processing LSR pre-order inquiries to CenturyLink. Because this is a web services interface, there are no dedicated circuit requirements for access. The CLEC/IXC/WSP must have internal policies and processes in place to support sending and receiving pre-order transactions over the public internet.

# Communications

## Initial Communications

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

* Initial request for LSR capability to the Service Manager
* Assignment of an Implementation Project Manager
* A general description of the EASE UOM interface
* An overview of the Implementation Process
* Identification of applicable LSR documentation resources

After initial contact with the service manager, each CLEC/IXC/WSP will be provided with a CenturyLink Implementation Project Manager. The Implementation Project Manager will work with the CLEC/IXC/WSP throughout the implementation and will fill the following roles:

* Project Manager (PM): Responsible for facilitating meetings, coordinating the overall project plan, and is the primary point of contact for CLEC/IXC/WSP during the entire implementation process.
* Business Analyst (BA): Responsible for providing assistance with the business rules that govern the LSR process and are enforced by the EASE Gateways

## Initial Communications Activities

When a CLEC/IXC/WSP is interested in EASE, the CenturyLink Service Manager will put them in contact with the LSR Project Manager from the Implementation Team to answer initial questions and to start the implementation process. When the LSR Project Manager receives the call that the CLEC/IXC/WSP is ready to start the Implementation process, a kickoff call will be scheduled. If a Third-Party Software Vendor or Service Bureau is involved in the testing, they can also be a part of the kick-off meeting.

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

1. Provide an overview of EASE UOM XML Interface and the products supported by these interfaces.
2. Discuss hardware/software requirements
3. Provide overview of connectivity and transport type used by CenturyLink
4. Introduce CenturyLink and CLEC/IXC/WSP team members and identify roles and responsibilities
5. Identify the objectives, scope of the products to be implemented and proposed timelines
6. Review the Implementation Guidelines and the implementation processes
7. Discuss the Testing/Production processes
8. Review documentation resources and distribution
9. Come to agreement that the CLEC/IXC/WSP will move forward with an implementation.

## Initial Communications Phase Completion

The initial communications phase will be considered complete with an agreement to either move forward with an implementation or to suspend or halt progress due to limitations on the CLEC/IXC/WSP side. This agreement and rationale will be documented in the meeting minutes by the project manager. Additional team meetings will be held as agreed upon.

##

# Project Plan

## Project Plan Development/Negotiation

An Implementation/Migration Project Plan represents the milestones and responsibilities of all parties throughout the planned EASE implementation process. These milestones will be mutually agreed upon. Regularly scheduled conference calls will be conducted as needed to review progress, answer questions, and identify and communicate resolution of issues. The assigned project manager will be responsible for maintaining and monitoring progress within the Project Plan. 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 Project Plan/Industry Upgrade Test Plan on the date(s) identified may result in the need to renegotiate a revised Project Plan/Test 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.

The development of, and agreement to, a formal Implementation/Migration Project Plan is the pre-requisite to continuing on to the remaining Implementation Process activities.

## Project Plan Development/Negotiation Activities

The following activities will occur during the Project Plan development and approval process:

1. CenturyLink IPM will provide a draft project plan for the customer’s review.
2. Project plan will contain all of the milestones that are required for either a new implementation of a LSOG release, or a migration of an existing customer to the next LSOG industry release.
3. The customer will review the proposed project plan and ask any questions about the content of the plan
4. The IPM will work with the customer to incorporate changes to the project plan and reissue, if necessary, for a final review and approval.
5. The customer will review the final project plan proposal and approve it when there is mutual agreement with the plan. This will be the final approved project plan for the implementation/migration.

## Project Plan Development/Negotiation Phase Completion

This phase of the EASE Implementation will be considered complete with the creation of an agreed upon, approved project plan.

# Requirements

## Requirements Review

A critical factor in a successful implementation is a thorough understanding by the CLEC/IXC/WSP of EASE. The requirements review phase of implementation will provide the CLEC/IXC/WSP with an opportunity to develop a clear understanding of these requirements. This review is critical to the customer who must:

* Develop and define the business processes and procedures necessary to support the use of their LSR interface for transactions.
* Develop the appropriate documentation (i.e., Methods and Procedures) necessary to support the use of EASE by CLEC/IXC/WSP personnel.
* Perform any necessary database gap analysis for the purpose of ensuring that all data fields that carry the LSR information can be successfully populated.
* Identify appropriate data values.
* Select Pre-Order transactions to support the intended products to be ordered through the Gateway.

NOTE: CenturyLink strongly recommends the use of Pre-Order transactions to assist CLECs/IXCs/WSPs in achieving Order content accuracy, reducing rejection rates, and improving Service Order flow-through. Pre-Order transactions can be submitted via EASE. Information on the use of EASE is documented on the CenturyLink Wholesale website at: <http://www.centurylink.com/wholesale/systems/ossconsolid_lsr.html> .

## Requirements Review Activities

While it is the CLEC/IXC/WSP’s responsibility to perform a thorough review of all CenturyLink requirements, CenturyLink will provide support to clarify issues and answer questions regarding EASE business rules, requirements, and the Implementation Process. CenturyLink recommends the following process to ensure that the CLEC/IXC/WSP has a thorough understanding of the answers to each question:

1. The CLEC/IXC/WSP reviews CenturyLink requirements as documented in the CenturyLink Specific Business Rules document and other documents listed in the “CenturyLink Document Overview” section of this document.
2. Questions arising from the CLEC/IXC/WSP’s review of LSR requirements will be captured on a Question Log by the CLEC/IXC/WSP.
3. The Question Log, with questions populated by the CLEC/IXC/WSP, will be submitted to CenturyLink.
4. CenturyLink will either provide a response to the question or identify those questions requiring further investigation and research.
5. CenturyLink will provide answers to outstanding questions and the CLEC/IXC/WSP will update the log to reflect their understanding of the answers provided.
6. CenturyLink will review the answers entered by the CLEC/IXC/WSP in the log after which the CLEC/IXC/WSP may indicate that a question may be closed if it has been adequately answered.

If this process becomes cumbersome to a CLEC/IXC/WSP, the process can be negotiated to allow the customer and CenturyLink to work together most efficiently while maintaining their ability to thoroughly understand the answers to the questions.

## Requirements Review Phase Completion

The Requirements Review phase of the implementation will be considered complete when the CLEC/IXC/WSP determines that they have adequately reviewed all of CenturyLink’s requirements documentation and have a thorough understanding of them. This understanding will be critical to the effective development of the customer’s interface with CenturyLink.

The CLEC/IXC/WSP may decide to continue use of the Question Log throughout the implementation.

# Documentation

## Documentation Overview

The following documents provide additional information on the Implementation Process, EASE, 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
* Generic Project Plan
* Contact List Template
* CenturyLink and Industry Website URLs

Additional information can be found on the CenturyLink LSR website <http://www.centurylink.com/wholesale/systems/ossconsolid_lsr.html> .

including:

* LSR Ordering Systems Information Guide
* CenturyLink Business Rules Differences List – CenturyLink EASE LSR Technical Specifications
* CenturyLink EASE Pre-Order Technical Specifications
* CenturyLink EASE Order Technical Specifications

Information specific to each LSOG Industry Upgrade is made available to the CLEC/IXC/WSP based on CMP guidelines and summarized in the schedule in Table 1.

|  |  |
| --- | --- |
| **PUBLICATION** | **SCHEDULED DELIVERY** |
| Draft EASE LSR Order/Pre-Order Technical Specifications | 73 days before planned Release Effective Date |
| Final EASE LSR Order/Pre-Order Technical Specifications | 45 days before planned Release Effective Date |

####

## CenturyLink EASE Pre-Order Technical Specifications

The UOM pre-order interface follows industry standards which can be found at <http://www.atis.org/>

The UOM pre-order interface is based on Telecommunications XML standards found in the UOM document.

CenturyLink’s EASE Pre-Order Technical Specifications are comprised of the information in CenturyLink’s implementation to the industry guidelines.

The content of the document may change after issuance. To notify CLECs/IXCs of any changes to the Pre-Order XML Technical Specifications, CenturyLink will issue an Addendum to the document. The Addendum will be placed on the CenturyLink website and a Release Notification will be distributed to the CLECs/IXCs. Additionally, the Pre-Order Technical Specifications Document will be updated as required to correct for documentation and/or system bugs.

CenturyLink’s Pre-Order functions support the following Pre-Order functions:

* Address Validation
* Telephone Number Inquiry
* Feature Service Availability
* Customer Service Information
* Loop Qualifications
* Validate CFA
* Raw Loop Data
* Listings for Telephone Number

CenturyLink follows the UOM XML standards.

## CenturyLink EASE Order Technical Specifications

The EASE ordering process follows the Local Service Request Ordering Guidelines (LSOG) located at <http://www.atis.org/>

The Customer is responsible for obtaining permissions and rights to the ATIS documentation.

The content of the document may change after issuance. To notify CLECs/IXCs of any changes to EASE, CenturyLink will issue an Addendum to the document. The Addendum will be placed on the CenturyLink website and a Release Notification will be distributed to the CLECs/IXCs. Additionally, the Order Technical Specifications Document will be updated as required to correct for documentation and/or system bugs.

EASE supports the following functions:

**Order Functions**

* CenturyLink supports a number of products as defined and outlined in the various CenturyLink tariffs and product descriptions documents.

**Post Order Functions**

* Firm Order Confirmations
* Clarification / Notification Request
* Error Clarification

## CenturyLink EASE Technical Specifications

The CenturyLink Business Rules Differences List is comprised of the differences in CenturyLink’s implementation to the industry guidelines.

This information can be found at <https://ease.centurylink.com/guide_lsog_2q14_help.shtml> and select CenturyLink EASE Custom Rules Error Codes.

## Establishing Connectivity Testing

Access to the EASE UOM XML functions will be over the public internet. XML Pre-Order uses a web services interface using http basic authentication with user name and password provided by CenturyLink. Specifics associated with the web service will be provided by CenturyLink as part of the implementation prior to connectivity testing.

## Establishing Connectivity Testing Activities

CenturyLink UOM XML Pre-Order tools are available on the public internet through a secured (SSL) connection. Security is provided by the Basic authentication method (Base-64 encoded). For a CLEC/IXC/WSP to gain access to the CenturyLink UOM XML Pre-Order tools, a user account needs to be created, including a negotiated user name and password combination. After a CenturyLink administrator creates the user account, the CenturyLink UOM Pre-Order tools become immediately available.

The Implementation Manager will work with the CLEC/IXC/WSP to agree upon the user name and password that will be used for Pre-Order access. The Implementation Manager will also work with the appropriate internal organizations to create the user account in the Pre-Order system and then test access with the CLEC/IXC/WSP.

## Connectivity Phase Completion

The Connectivity Phase will be considered complete when continuity tested between the end to end applications. This does not guarantee that specific order/pre-order transactions can be transmitted successfully from the customer to CenturyLink. It simply establishes that connectivity is proved between the two companies.

# Testing

## Implementation/Industry Upgrade Testing Process

The Implementation/Industry Upgrade Testing process is as follows:

* CenturyLink and the customer will agree on a test plan for the implementation/migration
* The CenturyLink test environment will be available for testing during posted times.
* The CLEC/IXC/WSP submits test transactions, according to the agreed-upon test plan.
* CenturyLink generates the responses dependent on the transaction passing the edits.
* A call may be scheduled (typically on an as needed basis) to provide an opportunity for CLEC/IXC/WSP and the CenturyLink testing representative to interact and discuss the testing results. Testing communication may also be done via email if unattended testing is selected.

## Implementation/Industry Upgrade Testing Activities

1. CenturyLink will notify the customers when the test window will be for Industry Upgrades. The CLEC/IXC/WSP will call CenturyLink to schedule their testing period within the overall test window.
2. For new Implementations, the Project Plan will determine when testing will occur.
3. The customer submits a proposed test plan which includes the number and types of LSRs which will be submitted for testing.
4. Purchase Order Numbers (PON) and REQTYPs to be tested will be part of the plan as well as how many/which one will need an Firm Order Confirmation (FOC) upon completion.
5. Proposed test plans may follow industry guidelines or be of the customer’s own creation. There are no minimum test requirements, however for a new implementation, it is suggested that all REQTYPs be tested that will be in production.
6. The CLEC/IXC/WSP will notify the IPM when they begin sending in order files for testing.
7. The IPM will track incoming files and notify the customer of the status of the test scenarios.
8. When Business Processing Layer (BPL) errors occur, the IPM will notify the customer and provide any assistance to them to resolve the issue.
9. All test scenarios submitted from the plan will receive successful acknowledgments from CenturyLink.
10. The customer will request when they want to receive any FOCs from the test plan. The IPM will advise the customer when the FOC is ready and a new file will be required from the customer to trigger the FOC back to them.
11. The customer may notify the IPM when an error they receive does not follow OBF standards. The IPM will research the error and if a bug is determined by the technical team, CenturyLink will determine when the bug will be fixed. CenturyLink will notify the CLEC/IXC/WSPs of any such bugs that do not get fixed during the test process.

## Implementation/Industry Upgrade Test Phase Completion

The Test Phase will be considered complete when the CLEC/IXC/WSP has successfully tested the Test Plan scenarios in the test environment for new implementation and/or the Industry Upgrade cut-over has occurred.

# Production

## Production Support

Once testing has been completed according to the test plan, the implementation customer will be readied for production. There are some configuration settings that must be completed in the production before the customer can begin sending transactions in production. For migration customers, there will be no configuration settings to complete.

As testing begins to wind down, the implementation/migration customer and CenturyLink will reaffirm the production date from the project plan and the IPM will direct any environment configuration that is necessary. It is expected that the customer will be available to test when the production occurs, hopefully with live orders, but if not, at least one of every type of order planned in Productions. On the agreed upon date for production, the customer may begin sending in transactions to CenturyLink.

## Production Support Contacts

EASE support to CLEC/IXC/WSPs who have recently been placed into production (either via a new implementation or Industry Upgrade process) will be provided as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **EASE** | **Timeframe** | **Technical Support** | **Contact Information** |
| New Implementations | First Week after Implementation | Implementation Manager  | Provided by IM |
| After First Week | CenturyLink IT Wholesale Systems Help Desk  | 1-888-796-9102 |
| Industry Upgrades | Immediately After Industry Upgrade | CenturyLink IT Wholesale Systems Help Desk  | 1-888-796-9102 |

## CenturyLink IT Wholesale Systems Help Desk Roles and Responsibilities

CenturyLink IT Wholesale Systems Help Desk (WSHD) personnel will provide information and resolution for EASE Pre-order transaction processing problems that are caused by failure of CenturyLink environment hardware or software components. This resolution may be in the form of direct action or through escalation to the appropriate individuals within CenturyLink.

If the WSHD cannot resolve the issue during the initial phone call, they will escalate to Tier 2 Production Support. The Tier 2 Support Team will then resolve and close the issue directly with the person that reported the issue.

## Limitations for CenturyLink LSR Support

The CenturyLink 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/IXC/WSP LSR processing environment.

Questions regarding Order content, Order writing procedures or transaction status should be referred to the CLEC CenturyLink Service Manager, or refer to the Industry LSOG documents.

## Hours of Availability for EASE

The hours of availability can be found at: [http://www.centurylink.com/wholesale/cmp/ossHours.html](http://www.qwest.com/wholesale/cmp/ossHours.html)

## Service Level Agreements

Outside of the CenturyLink Interconnect Agreement, CenturyLink does not maintain separate service level agreements with CLECs, nor will CenturyLink 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 CenturyLink. 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.

# Addendum

## Proposed Schedule Need to update link to LSR Access site

|  |  |  |
| --- | --- | --- |
| **Key Milestones** | **Duration** | **Owner** |
| Initial Customer Engagement Meeting | 1 day | Both |
| Provided UOM Specifications | 1 day | CenturyLink |
| Complete Technical Questionnaire | 10 days | Customer |
| Joint Technical Meeting | 2 wks post CEM Mtg | Both |
| Timeline Confirmation Meeting | 1-2 weeks post JTM | Both |
| Develop (Code/Configuration) | TBD | Both |
| Code Ready Date | TBD | Customer |
| Test Planning Meeting | 2 wks prior to Test start | Both |
| Environment Readiness |  | Both |
| Test Case Review | 1 wk prior to Test start | Both |
| Final Test Execution Readiness Meeting | 2 days prior to Test Start | Both |
| System Testing | Post Dev | CenturyLink |
| Connectivity Testing | 2 weeks | Both |
| User Testing | 3 weeks | Both |
| Deployment Planning Meeting | 3 weeks prior to Deploy | Both |
| Final Deployment Planning Meeting | 2 days prior to Deploy | Both |
| GO/NO GO Meeting | 3 days prior to Deploy | Both |
| Code Lock | 1 week prior to Deploy | Both |
| Implementation |  | Both |
| Post-Implementation Support | 1 week | Both |

## Events / Milestones Need to update link to LSR Access site

|  |  |
| --- | --- |
| **Event/Milestone** | **Activities** |
| Initial Customer Engagement Meeting | * Review UOM Implementation Process
* Identify IT/Business leads from customer and complete contact information
* Assess customer readiness/resource availability
* Discuss Next Steps
 |
| Joint Technical Meeting | * Confirm contact information
* Develop high-level schedule
* Discuss connectivity testing strategy/ time required
* Discuss technical requirements:
* Preferred connectivity option
* Connectivity Information
	+ Customer and CenturyLink - provide IP addresses; source/destination URLs (test and production environments)
* Type of security required
 |
| Timeline Confirmation Meeting | * Confirm timeline
* Address questions and concerns
 |
| Environment Readiness | * Interface/connectivity changes complete for CenturyLink and customer
 |
| Test Execution | * Connectivity & Application Testing
* Comparable support/troubleshooting contacts from the customer side
 |
| Deployment Planning | * Determine Implementation Window
* Consists of mutually agreed upon timeframe for production deployment. Typically done after hours to avoid impact to any daily activities.
* Develop Implementation Plan (Customer & CenturyLink)
* Should outline tasks, resource and timeframes for each activity/tasks to be completed during the implementation window.
* Develop Backout Plan
* Implementation plan will include a backout plan in the event an issue arises during deployment
* Escalation
* Escalation point during deployment will be through the CenturyLink IT contact.
 |
| Deployment Execution | * Deployment Execution Communication:
* A joint conference bridge will be established at the beginning of the deployment activities, to allow easy communication between CenturyLink and the customer.
* Upon approval of the deployment and verification testing activities, both companies will provide sign-off.
 |
| Post-Implementation Support | * In order to minimize and/or ensure that there are no production issues following the deployment, the EASE IT contact will monitor the activities of the new customer, on a daily basis, for at least a week, and address any issues that might arise.
 |

## Test Plan

Test Planning will begin approximately two weeks prior to the start date of testing where the following will be reviewed and determined:

* + **Test Case Creation:** It is expected that test cases will be documented that are required for successful test execution of LSR UOM capability. These test cases will be used as the basis for a successful testing phase.
	+ **Test Case Execution Window:**  Test cases will be executed during a defined testing window. This will be a mutually agreed upon time. For example. 8-12 AM CST or 1-5 PM CST. This will ensure all resources are available during the planned testing timeline.
	+ **Reporting Test Case Execution Status:** Status of test case execution should be reviewed at least twice, if not daily. A report of how many test cases have been completed and passed and what issues exist for specific test cases should be created by the customer and reviewed by CenturyLink and the customer, jointly.
	+ **Testing Success Rate:** Goal for execution and pass rate should be mutually determined during Test Planning.
	+ **Testing Communications:** During planning, the method, timing and frequency of communications for testing should be determined by CenturyLink and the customer. Periodically, CenturyLink refreshes the test databases, which may require CenturyLink to provide new test data.
	+ **Testing Resources:** Testing resources need to be confirmed prior to the start of testing. All testing resources should be readily available via phone, email or IM during the testing window. This will ensure testing stays on schedule and resolution incurs no delay.
	+ **Testing Phases:** During planning, the testing phases will be reviewed. Testing Phases include Connectivity, Systems and User Testing. These are detailed in the Test Execution Phase.
	+ **Testing Timeline:** During planning, the testing timelines should be solidified and confirmed for each phase. Guidelines are provided in the overall schedule section of this document.

**Test Case Reviews**

A review of the Test Cases to be executed should be held at least one week prior to the start of testing. The participants would be the Test Case creators and execution contacts from both companies. Test cases should cover all scenarios that would be executed through the UOM interface.

## Test Execution - Types of Testing

* + **Systems Testing:** System Testing will be completed by CenturyLink to ensure core components are functioning prior to connectivity test start.
	+ **Connectivity Testing:**  Connectivity testing is the first step to completing preparation for User Testing. Connectivity testing will ensure we have the interface connectivity setup correctly and transactions can be sent between CenturyLink and your company. It is critical that we have access to the individuals who can support and troubleshoot the Connectivity Testing. This is often where the entire process becomes delayed if not handled in a timely manner.
	+ **User Testing:** User testing will be the execution of the User Created test plan. CenturyLink will be required to confirm transactions are received and responses are sent. This testing will be completed during the defined Testing Window.

## Deployment Planning

Deployment Planning will begin approximately three weeks prior to the actual implementation date where the following will be reviewed and determined:

* + **Detailed Project Plan:** A detailed Project Plan will be created outlining the tasks, resources and timeframes for each activity to be completed during the implementation window. Both CenturyLink and the customer will be required to create one.
	+ **Backout Plan:** Each deployment plan will include a backout plan in the event an issue arises during deployment and/or testing that requires us to backout the changes.
	+ **Implementation Window:** The implementation window will consist of a mutually agreed upon timeframe of which the UOM code will be deployed into production. This is typically done after hours to avoid impact to any daily activities.

* + **Shakeout Testing:** Testing will occur once the deployment is complete to ensure the new interface is working as designed and did not negatively impact the non-UOM business activities.
	+ **Shakeout Testing Data:** Data required for shakeout testing needs to be planned ahead of time to ensure adequate data for execution against the new UOM interface.
	+ **Escalation:**  The Escalation point during Deployment will be through the CTL IT Primary POC who will then engage the CTL Business Escalation point. It is expected that the customer will utilize a similar process.
	+ **Code Lock:** It is customary to lock code one week prior to the actual deployment date. This allows time to finish preparation for implementation and ensures no hasty last minute changes jeopardize the success of the activities.
	+ **GO/NO GO:** A joint GO/NO GO meeting will be held with both CenturyLink and the customer to review the testing results, deployment planning readiness and provide the final GO or NO GO decision to implement the new UOM interface. This will be held at least 2 days prior to, and no more than five days prior to the actual deployment start.

## Deployment Execution

* + **Deployment Execution Communication:** A joint conference bridge will be established at the start of the deployment activities. This will allow for easy communication between CenturyLink and the customer. All status and issues will be reported to this bridge. The bridge can be provided by either company.
	+ **Deployment Approval**: Upon approval of the deployment and Shakeout testing activities, all key parties will gather on the joint bridge to discuss the status of the deployment. At this time, a GO/NO go decision will be made to move ahead with the new UOM interface.

## Post Implementation Review

* **Post Implementation Meetings**  In order to ensure there are no production issues post initial deployment, post implementation meetings will be setup daily by the IT Main point of contact the week following to address any issues that may arise.

# Glossary

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| **Term** | **Definition** |
| LSR | Local Service Request |
| ATIS | Alliance for Telecommunications Industry Solutions |
| CLEC | Competitive Local Exchange Company |
| EASE | Electronic Administration & Service Order Exchange |
| HTTP | Hypertext Transfer Protocol |
| IXC | Interexchange Carrier |
| OBF | Ordering & Billing Forum |
| UOM | Unified Ordering Model |
| XML | Extensible Markup Language |
| VFO | Virtual Front Office |
| WHSD | Wholesale Systems Help Desk |
| WSP | Wireless Service Provider |