
Medicare

Intermediary Manual

Part 3 - Claims Process

Department of Health &
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Centers for Medicare &
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Section 3680, Release Software, has been updated to include revised priority definitions for production issues and new priority definitions for test issues. It also adds a definition for acceptable workaround.

Section 3681, Contractor Testing Requirements, has been included to revise the page numbers.

DISCLAIMER: The revision date and transmittal number only apply to the redlined material. All other material was previously published in the manual and is only being reprinted.

These instructions should be implemented within your current operating budget.

3680. RELEASE SOFTWARE

The CMS intends to continue to closely manage standard system software changes to assure that an effective change control process is in place. This means that maintainers must receive approval from their CMS system maintenance lead (see section VI) or CMS project officer before any follow-up release by the standard maintainer can be scheduled and installed.

A. Control of System Changes.--All maintainers of the standard systems (CWF, FISS, APASS, MCS, VMS, GTEMS, and HPBSS systems) must use the same quarterly release schedule, i.e., on or about January 1, April 1, July 1, and October 1. The specific schedule for each quarterly release will be determined by CMS.

All follow-up release changes (except emergencies) to the quarterly schedule must be held and released on a predetermined schedule in coordination with CMS. Emergency changes may be released as problems are identified without prior approval. The schedule for follow-up release of changes must be forwarded to your CMS system maintenance lead or CMS project officer for prior approval.

Follow-up release changes are to be limited to the correction of priority 1 and 2 problems and errors that prevent effective operation of the production system. Priority 3, priority 4 and/or priority 5 problems may be corrected in a follow-up release when pre-approved by CMS. The CMS maintenance lead will advise you of the approval decision within 24 – 48 hours.

If a system problem is identified, Medicare organizations must submit documentation to their CMS system maintenance lead outlining the problem and the reason correction is needed at this time. Section V of this instruction outlines the minimum information required by CMS for approval.

B. Problem Priority Classifications for Follow-Up Releases.--Listed below are CMS's problem priority classifications and examples. These are similar to the problem priority classifications that were used for the Y2K re-certification testing period.

Priority 1 Classification**Production:**

The problem prevents the accomplishment of a mission critical capability for which no acceptable workaround is known.* This priority also includes problems where code must be fixed immediately in order for the normal production region functions or services to continue. For example, if the production region is down in a job resulting in an incomplete cycle or the system is pricing a significant volume of claims incorrectly causing over or under payment. The maintainer may make priority 1 changes on its own authority. These corrections must be reported to the CMS maintenance lead or to the project officer the next business day.

Examples:

- ABENDS on-line or batch (Inability to run a cycle)
- Inaccurate payment or no payment of claims (significant impact/high volume)
- Necessary file updates cannot be accomplished (payment files, history files)
- Interface failures affecting claims processing

Beta/User Acceptance Testing:

The problem would prevent the accomplishment of a mission critical capability if the current test software is moved into the production environment. This priority also includes problems where code must be fixed immediately in order for the normal test region functions or services to continue. For example, if the test region is down in a job causing the cycle to not complete

or the system is pricing claims incorrectly with a potentially significant claim volume or payment impact, the issue would be classified as a priority 1. The maintainer must work immediately to code a fix to be installed before moving the software into production.

Examples:

- ABENDS; inability to run a cycle or test
- Inaccurate payment or no payment of claims (potentially significant impact)
- Necessary file updates cannot be accomplished (payment files, history files)
- Interface failures affecting test conditions

Priority 2 Classification

Production:

The problem adversely affects the accomplishment of a mission critical capability so as to degrade performance and for which no acceptable work-around is known.* This means the problem adversely affects the payment of benefits **with a small claim volume or payment impact**, the completion of CMS required reporting, or inaccurate information is being sent providers, beneficiaries or CMS. For example, **if the information on an outgoing document to the provider community or Medicare Summary Notice is incorrect, the issue would be classified as a priority 2.** The system maintainer must **work with the CMS maintenance lead for approval to implement a fix.**

Examples:

- Inaccurate payment or no payment of claims (small impact/low volume)
- Inaccurate CMS required report
- Inaccurate messages to the beneficiary, provider or CMS
- ABENDS with limited impact (ex. One contractor)

Beta/User Acceptance Testing:

The problem would adversely affect the accomplishment of a mission critical capability so as to degrade performance if current test software is moved into the production environment. This means the problem adversely affects the payment of benefits with a potentially small claim volume or payment impact, the completion of CMS required reporting, or inaccurate information is being sent to providers, beneficiaries or CMS. For example, **if the information on an outgoing document to the provider community is incorrect, the issue would be classified as a priority 2.** The maintainer must work immediately to code a fix to be installed before moving the software into production.

Examples:

- Inaccurate payment or no payment of claims (potentially small impact)
- Inaccurate CMS required report
- Inaccurate messages to the beneficiary, provider or CMS

Priority 3 Classification

Production:

The problem adversely affects the accomplishment of mission critical capability so as to degrade performance and for which an **acceptable** workaround is known.* This means the problem could have significant impact but the work-around **alleviates the impact.** This allows the system maintainer adequate time to code a fix and sufficiently test before the corrected software is delivered for production installation. The system maintainer must **work with the CMS maintenance lead to implement a fix.**

Examples:

- Impact of problem could be significant or minimal
- Problem correctable by contractor workaround*
- ABENDS with an acceptable workaround*

Beta/User Acceptance Testing:

The problem would adversely impact the accomplishment of a mission critical capability so as to degrade performance if current test software is moved into the production environment. If moved into the production environment before correcting an acceptable workaround could be instituted to prevent the adverse impact.** The system maintainer must work immediately to code a fix to be installed before moving the software into production.

Examples:

- Potential impact of problem could be significant or minimal
- Problem affects CMS required reporting

Priority 4 Classification**Production:**

The problem is an operator inconvenience or annoyance, which does not affect a required mission essential capability. The system maintainer must request approval to **code and implement a fix from its CMS maintenance lead.**

Examples:

- Problems affects non-mission critical functions
- Operational procedure with workload impact that should be automated
- Impact of problem is minimal
- Correctable by contractor workaround*

Beta/User Acceptance Testing:

The problem is a test inconvenience or annoyance, which does not affect a required mission essential or test capability. If moved into the production environment before correcting, an acceptable workaround could be instituted to prevent the inconvenience.** The system maintainer should work immediately to code a fix to be installed before moving the software into production.

Examples:

- Problem affects non-mission critical functions
- Operational procedure with workload impact that should be automated
- Impact of problem is minimal
- Correctable by contractor workaround*

Priority 5 Classification**Production:**

All other documented system problems. These could include operator errors, an inability to reproduce the reported problem, a problem with insufficient information, or documentation errors. The system maintainer **should** request approval **from the CMS maintenance lead before coding and implementing any system enhancements.**

Examples:

- Contractor requested enhancements
- Documentation errors (i.e. Business requirements)
- Problem affects non-mission critical functions
- Minimal impact

Beta/User Acceptance Testing:

All other documented system test problems. These could include operator errors, an inability to reproduce the reported problem, a problem with insufficient information, or test documentation errors. The system maintainer should work to correct these issues as soon as possible but any system enhancements should be discussed with the CMS maintenance lead.

Examples:

- Test region or processing enhancements
- Test documentation errors (i.e. business requirements)
- Problem affects non-mission critical test functions
- Minimal impact

* An acceptable workaround is a temporary alternative solution to a confirmed problem in the shared system that will insure the contractor is able to accomplish a mission critical capability. What makes the workaround “acceptable” is it must be agreeable to both the maintainer and contractor and does not cause an excessive burden to the contractor. If the maintainer and contractor cannot come to an agreement on what is “acceptable” the decision will be made by CMS.

** CMS does not recommend using workarounds in the test region in order to “pass” test cases. The institution of a workaround should be used in order to implement a CMS mandate where the system maintainer may not have time to adequately code a fix before the software is delivered for production installation.

C. Routine File Maintenance/Updates.--The CMS does not require pre-approval or special documentation of routine file maintenance/updates or other routine activities necessary for effective operation of the Medicare system, Medicare processes and/or testing (e.g., MR/UR screen updates, provider and beneficiary file updates). All contractors and data centers should continue with their normal maintenance file routines.

D. Testing Prior to Installation of CMS Approved Follow-up Releases.--The CMS explains expectation for each Medicare organization’s testing responsibility (i.e., standard system maintainers testing, contractor testing, CWF host testing, Beta testing).

E. Information Required for Requesting CMS Approval.--The following must be submitted to the CMS maintenance lead or project officer when requesting that a problem be implemented in a follow-up release. If the system maintainer already has a process in place for communicating system problems to CMS, that process may be used as long as all information below, at a minimum, is captured.

MAINTAINER NAME:

Problem Description:

Brief non-technical business description of the fix.

How Found:

Explain how the problem was found. Also explain why you believe it was not found by release testing.

Problem Impact:

This information is needed to determine the scope of the problem in terms of payments, provider types, beneficiaries, number of potential claims impacted, if a work around is available, etc.

Problem Priority Classification:

Is this problem prioritized as an emergency, 1, 2, 3, 4, or 5.

Release Options:

Explain the options for scheduling and implementing the fix.

Technical Recommendation for Release timing:

Explain the recommended timing for installing the release.

F. CMS System Maintenance Leads.--Maintainers must forward schedules and documentation of all changes as required in the memorandum to your CMS maintenance lead as indicated below. If your current process is to forward this information to your project officer, continue to do so. Your CMS maintenance leads will advise you of backup staff.

3681. CONTRACTOR TESTING REQUIREMENTS

The goal of combined systems testing efforts is to ensure that all changes function as intended and that the implementation of the changes does not degrade or otherwise unintentionally affect existing system capability and function prior to implementation. This identifies the overall testing responsibility for each organization to help achieve this goal. Generally, all organizations shall test each quarterly release (and interim releases as appropriate) to meet the goal of systems testing. Definitions are provided in this section.

All organizations shall have processes in place to meet the requirements with the testing activities associated with CMS's third quarterly release in July 2001. Testing activities will generally begin 3 to 4 months in advance of the release date, particularly for standard system maintainers and the CWF maintainer.

Standard System and CWF Maintainer Testing

Each maintainer of the Fiscal Intermediary Shared System, Arkansas Part A Standard System, Multi Carrier System, VIPS Medicare System, Verizon, CMS Part B Standard System, and Common

Working file systems shall test all changes and software releases before distributing them to a beta test site or their users. For quarterly systems releases, prior to distribution to a beta test site or their users, maintainers shall:

- Perform unit/module and stringtesting, system testing, and regression testing (see ***Definitions*** section);
- Utilize a standard set of test claims representative of typical claims received by their users. This standard set of test claims shall be used to test every quarterly release;
- Create new test cases to test specific changes, as indicated by change requests; and test typical interactions (sending claims and receiving appropriate responses) with CWF, through a selected CWF host.

The maintainers shall report to CMS (through their project officer or CMS maintenance contact) and the recipients of a release of any identified problems found during testing and subsequent fixes to those problems. CMS encourages maintainers to inform CMS and the recipients of the release of identified problems and fixes on a continuous basis, but report no later than with the distribution of the release. Maintainers shall communicate this information in writing (e-mail, fax, etc.) *and* where the capability exists, a centralized database such as INFOMAN.

Maintainers shall obtain approval from their CMS project officer or maintenance contact for all non-quarterly release changes. All changes outside of a quarterly release (interim releases, mini-releases, table/fee schedule updates, elevates, and emergency fixes) shall be tested to the extent feasible within mandated time constraints. The maintainer shall not distribute any changes without performing unit/module testing, at a minimum.

Standard System Beta Testing

A selected user of the following systems will perform beta testing on quarterly, emergencies, and fix releases prior to general distribution to all users: FISS, APASS, MCS, and VMS/DMERC. Beta test sites are required by contract with CMS, and before the maintainers send the release to its users for their testing, to:

- Review standard system maintainer documentation of the changes contained in the release for completeness and accuracy, providing feedback to the maintainer and CMS;
- Develop tests to conform with the conditions described in the maintainer specifications for all changes contained in the release (CMS mandates and other changes);
- Test all claim types for Part A, Part B, and DMERC claims processing (as it applies);
- Test claims providers are likely to submit that are incorrect (as it applies to each CR);
- Create a variety of claims, process them through the new release version of the standard system software, and evaluate the processing results against specifications;

Perform regression and volume testing (see *Definitions* section) in addition to performing and evaluating individual test cases;

- Submit test files through the CWF beta site and evaluate the processing results against Specifications.

The beta test sites will report all test results to CMS and the individual maintainer. Beta testing, separate and apart from user testing, will continue to occur until the implementation date of the release. It is CMS's goal to have Beta test sites begin testing 8 weeks prior to release implementation, which is approximately 4 weeks prior to the start of user testing. Individual determinations will be made on the timing of Beta testing for each quarterly release.

CWF Host Beta Testing

The CMS has currently designated Great Western and Southwest CWF hosts to perform beta testing of each CWF quarterly software release. By contract, the Great Western CWF host will beta test all CWF change requests, perform regression and volume testing, test out-of-service-area (OSA) processing, and will test with each standard system maintainer and the four standard system beta sites. The great Western host will test all CWF quarterly, emergency and priority releases. The Southwest host will test all CWF quarterly releases and perform OSA testing with the Great Western host.

Contractor (User) Testing

Each contractor shall test, at a minimum, all CMS change requests contained in their standard system's quarterly release. This testing may be done in collaboration with other users of the contractor's data center or standard system.

Each contractor shall perform the following processes when appropriate:

- Process test claims through their front-end processing system, entering test claims through their own EMC software, DDE, and OCR mechanisms, emulating production claim submission;
- Process test claims through the standard system, including a minimum of one submission to their primary CWF host site (more than one submission is strongly recommended);
- Process test claims through their back-end processing system, producing ERAs, RAs, EOMBs, and MSNs);

- Develop and execute test cases designed to test specific changes, which may include criteria to ensure other back-end processes and interactions function in accordance with specifications (e.g., ensuring correct data flow to the financial or reporting systems/modules);
- Test claims providers are likely to submit that are incorrect (as it applies to each CR);
- Develop and execute test cases designed to test any variations in the system or claim/provider mix local to that contractor; and
- Report problems, including pertinent documentation and impact information, found during testing to their data center or standard system maintainer, as appropriate, through their regular release reporting system (e.g., INFOMAN).

It is CMS's goal that all data centers for contractors will receive quarterly release software from their standard systems maintainer no later than 4 weeks prior to the implementation of the quarterly release. Individual determinations will be made on the timing of contractor testing for each release.

All changes outside of a quarterly release (interim releases, mini-releases, table/fee schedule updates, elevates, and emergency fixes) shall be tested prior to implementation to the extent feasible within any time constraints. All testing should be done to meet the goals of systems testing.

In addition, to improve the overall testing process, contractors may suggest test cases or test claims for their standard system maintainer to use during maintainer testing of the release.

The CMS strongly encourages each contractor to implement some level of quality assurance and quality control of their testing within their current resources. Because of funding limitations, CMS is not mandating any quality assurance requirements for contractors at this time.

CWF Host Testing

Each CWF host is required to install the CWF quarterly release software in their test region and make the software available to their satellites (contractors) for testing. The host shall send out Satellite software and documentation, test the release using current files submitted by maintainer, report release problems to CWF and CMS. In addition, each CWF host will verify with CMS that each of its satellites submitted at least one test file during user testing.

Documentation

It is important for all testing organizations to retain documentation of their testing activities (and any quality assurance and quality control activities), and the factors that affect their ability to test timely and completely. Testing organizations (maintainers, beta test sites, hosts, and users) shall retain documentation that allows a reviewer (CMS or its agents) to determine what specification or requirement was being tested, how it was being tested, and whether the test criteria was successfully met. Documentation may be hard copy or electronic, as long as it is accessible to reviewers. Additional requirements for selected standard system and CWF maintainers, beta test sites, and CWF hosts are contained in these organizations' individual contracts.

All testing organizations shall complete a testing log. Recognizing that testing and test plans change throughout the testing period, maintainers shall update a testing log on a weekly basis, beginning at the start of system testing (see *Definitions* section). Beta test sites shall update a testing log on a weekly basis, beginning 1 week after receipt of the release for testing. Hosts and contractors (users) shall complete a testing log within 1 week after receipt of the release for testing. All testing organizations must update their testing logs to current testing status within 15 calendar days of the quarterly release implementation date. The testing log shall contain information regarding all of the contractor's testing activities for the quarterly release testing period.

The log is designed to show the testing activities a contractor performs to test each CMS change request or other change contained in the quarterly systems release. A template log is attached. Contractors may complete a log using a format differing from the template, but all logs shall contain the following:

- The CMS change request or other change request requirement number tested;
- A descriptive list of tests for the CR or requirement;
- The functional area of Medicare processing each test addresses;
- Problems reported;
- Test results; notes of any other factors affecting the ability to execute and evaluate a particular test; and
- A short narrative describing the outstanding problems that exist at the time the release is implemented into production.

All testing organizations must retain testing documentation for four quarterly releases at a time. This will approximately relate to 1 calendar year.

Definitions

The following definitions are provided for clarity and common understanding.

Unit/Module Testing - Testing typically conducted by a programmer or coder to ascertain if the unit or module performs correctly, independent of the system.

String Testing - Testing of several key units or modules to ascertain if they perform correctly together when interfaced.

Systems Testing - Testing conducted by the development team (the maintainer) to ensure that the entire system performs successfully.

Regression Testing - Testing designed to show that functionality that existed prior to a change has not been lost or unintentionally modified by the coding performed to implement the change.

Volume (or Stress) Testing - Testing performed with massive volumes of data to ensure that the system will continue to perform correctly and within acceptable CPU time when introduced into production.

Change Request or Requirement Number	Test Identifier or Business Process	Claims Electronic Collection	Claims Entry and Initial Validation	Claim Adjudication CWF - Claims Payment	Correspondence MSN / EOMB	Customer Service Correspondence Tracking Letter Generation	Reporting	Financial Processing Remit-Checks-Cash	Problem Number	Status of Testing
Requirement 1	Test 1.1	X			X	X				PASS
	Test 1.2		X				X	X		PASS
	Test 1.3				X	X	X			PASS
Requirement 2	Test 2.1	X						X		PASS
	Test 2.2		X	X	X			X	XXXX	PASS AFTER FIX XXXX
Requirement 3	Test 3.1	X						X		PASS
	Test 3.2	X		X	X	X				PASS
	Test 3.3						X	X	XXXX	
	Test 3.4		X		X	X				PASS

At the time test cases are being developed, the functional areas of Medicare processing should be determined documented as per the example above. Once testing has started, any applicable problem numbers and status of testing should be documented.