
Program Memorandum

Intermediaries/Carriers

Department of Health and
Human Services (DHHS)
HEALTH CARE FINANCING
ADMINISTRATION (HCFA)

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CHANGE REQUEST 1027

SUBJECT: CONTRACTOR TESTING REQUIREMENTS--ACTION

The purpose of this Program Memorandum (PM) is to provide guidance on each Medicare organization's testing responsibility.

Medicare claims processing software changes made in conjunction with HCFA change requests are scheduled to be implemented on a quarterly basis. On or about January 1, April 1, July 1, and October 1 of each year, new software becomes effective in production at each of the claims processing sites. These scheduled software updates are commonly referred to as HCFA's quarterly releases.

The goal of release testing is to ensure that all programmed changes work as intended and that existing system functionality is not degraded. Medicare systems maintainers, carriers, and fiscal intermediaries are required to test any changes or corrections to software so that they are assured the changes are working as intended and that the production system will continue to operate effectively. This PM is not meant to create new or additional testing processes for Medicare contractors or maintainers if they already have methods in place that address the requirements in this PM. All contractors must have processes in place for testing that meet the requirements in this PM by January 1, 2001. Each test environment must reflect the production environment as closely as possible. HCFA's requirements for testing quarterly releases, prior to production installation, are summarized below.

Standard System Testing

The maintainers of all of the standard systems (FISS, APASS, MCS, VMS, GTEMS, HPBSS and CWF) are required to perform internal testing prior to distributing software to their users. All HCFA mandates, user maintenance requests, and problem corrections must be tested. The standard systems maintainer must use a generic set of Medicare test claims, as well as create new test cases (as appropriate) to ensure that all changes have been tested correctly. Testing must also verify all software modifications as well as existing functionality, to ensure that modules work in an integrated fashion and that the system functions as intended. Maintainers are also required to test with a selected CWF Host during release testing.

The standard system maintainers should continue their current reporting process for informing their users of any identified problems, including any problems found during Beta testing. Any known software problem and its status must be communicated to the users when the release is distributed to them. Standard system maintainers must retain all documentation of their testing efforts for a minimum of one year. Maintainers must report the outcomes of release testing to their HCFA project officer or lead maintenance contact at central office. Any outstanding problems must also be reported in writing to HCFA prior to installation of the software fixes in production, unless HCFA has the ability to monitor this via a centralized database (i.e., Infoman).

All non-quarterly release changes must be approved and released on a schedule that has been coordinated with your HCFA standard system maintainer lead. HCFA will be issuing further guidance on changes released outside of the quarterly change control process. Quarterly release testing requirements are mandated. In addition, all interim releases, mini releases, table/fee schedule updates, elevates, and emergency fixes that are distributed in-between quarterly releases must also be tested to the extent feasible within the time constraints given. After further consultation with maintainers and users, additional guidance will be provided on this requirement. All documentation must be retained.

Standard System Beta Testing at a User Site

The purpose of standard system Beta testing is to ensure that Medicare standard system releases are of the highest quality. Beta testing is performed to ensure that clean, well-tested releases are installed in production environments.

Beginning with the April 2000 quarterly release, most standard systems will be required to release their software to a HCFA selected user for Beta testing. Depending upon HCFA's agreement with the maintainer, system software will generally be distributed to the Beta contractor site 60 calendar days prior to the production effective date of that release. Beta test sites are required to develop testing requirements that address HCFA mandated changes, as well as requirements that conform with conditions described in the specifications prepared by their standard system. Beta test sites must process test claims and transactions through the new software and validate the processed results against the specifications, as well as test existing functionality. Beta sites must report all results to both the standard system maintainer and HCFA. Any errors identified during testing must be documented, corrected by the maintainer, and retested. All Beta sites must maintain all documentation of their testing efforts. Beta testing contractors are required to report any problems that arise during Beta testing immediately to HCFA, on a flow basis, as well as, report the outcome of testing, once it has been completed.

CWF Host Beta Testing

HCFA has designated two CWF Hosts to perform Beta testing of each CWF quarterly software release. These sites will receive CWF software 45 calendar days prior to the production effective date of that release. They will test all CWF change requests, as well as perform regression, volume, and out-of-service area (OSA) testing. In addition, the CWF Beta sites will perform release testing with all standard system maintainers. Any errors identified during testing must be documented, corrected by the appropriate maintainer, and retested. All CWF Beta sites must maintain all documentation of their testing efforts.

Contractor Testing

Depending upon current contractual agreements between HCFA, maintainers, and their users, all data centers for Medicare contractors (i.e., fiscal intermediary, regional home health intermediary, carrier, and DME regional carrier) will receive software from their standard systems maintainer a minimum of 21 calendar days, prior to the production implementation of the quarterly release. Some contractual agreements exceed this minimum requirement. HCFA will be working to lengthen the time given for contractor testing. It is the responsibility of each Medicare contractor to ensure that their data center makes the acceptance version of the next quarterly release software available for testing at the earliest possible date.

Each Medicare contractor is required to perform testing of the standard system quarterly releases from the contractor's front end processing system through the standard system and through the contractors back end processing system. Contractors should be expected to enter their test claim transactions using their own EMC software, DDE, and OCR mechanisms emulating production claim submission as closely as possible. Contractors must ensure that the standard system software modules/files can be properly installed and/or accessed, ensure that the software modules/files run and process, and that functionalities, data exchanges and interfaces are tested and validated. This includes fiscal intermediaries and regional home health intermediaries testing with the PS and R system.

In addition, output data must be reviewed to determine that the proper results were obtained. Contractors must also test to ensure that the entire system continues to operate effectively and that the integrated software meets HCFA's and the users' specified requirements. If a contractor relies on a data center to perform testing, as may be stated in their individual plan agreements, that contractor is responsible for ensuring that the data center actually performs the required testing and validates the test results for correctness.

It is important that contractors develop and maintain necessary documentation to prove that they tested correctly and implemented changes timely. At a minimum, contractors must retain the following information for each release: Test date, number of cycles run, total number of test cases run, types of claims/functions tested, HCFA change request numbers tested, standard system change request numbers tested, and results of the test. Also, document in the log, any other factors that impacted testing (late receipt of requirements, late delivery of code, compressed test window, etc.). This testing log and all test documentation must be available for HCFA review and must be retained for a minimum of one year from the production date of the release. This documentation may be reviewed by HCFA, or its agents, and must be available upon request. Testing examples must be retained, either electronically or on paper.

All Medicare contractors are required to send test files to their primary CWF Host with each quarterly release. A minimum of one test file per release must be sent to CWF; however, more than one test file is strongly recommended.

Contractors are encouraged to raise implementation issues to HCFA, however, decisions regarding implementation will be made by central office personnel. Contractors should report any documented problems to their regional office contact and the central office maintenance lead for their standard system, as soon as the information becomes known. Examples include delayed implementation of a change, identification after implementation that a change is not working as intended, or corruption of other code that has resulted in incorrect processing for a period of time. We will be providing further guidance for reporting this information.

Quarterly release testing requirements are mandated. In addition, all interim releases, mini releases, elevates, and emergency fixes that are distributed in-between quarterly releases must be tested as much as possible, given the time frame involved. After further consultation with maintainers and users, additional guidance will be provided on this requirement. At a minimum, documentation must demonstrate that changes were reviewed by a second party and were approved by management. All documentation must be retained.

Pooled Testing Resources

HCFA strongly encourages those contractors that use the same standard system and/or data center to pool their expertise or test specific areas of concentration. If users decide to use this method and assign changes to be tested based on expertise, it must be documented in the testing log.

CWF Host Testing

All CWF Hosts will receive software from the CWF maintenance contractor 24 calendar days prior to the production implementation of the software. All Hosts are required to load the CWF software to their test region and have the software available to their Medicare contractors for testing. All Hosts must maintain documentation of their testing efforts. Hosts will identify those Medicare contractors that have submitted test files during release testing. This information must be submitted to the HCFA CWF Host Operations staff within 7 days after the release production date.

System Testing Tools

HCFA strongly encourages the use of testing tools to strengthen your testing program. The maintainers are strongly encouraged to utilize Visual 2000 and/or Expediter software to review test coverage.

Independent Validation Testing

HCFA will be performing independent validation testing. This testing is being conducted by an independent entity and is separate from all individual contractor testing. HCFA plans to conduct this type of testing for the selected systems at designated sites for all quarterly releases. The validation will provide HCFA with an independent view that: (1) the system maintainers have correctly effectuated program mandates and other change requests, and (2) software changes did not adversely impact the behavior of the system (regression testing).

The contractor implementation date of this PM is for quarterly testing of the January 1, 2001 release.

This PM is effective with testing of the January 1, 2001 release.

This Program Memorandum may be discarded January 1, 2002.

If additional resources are required, they should be requested and separately identified in your 2001 budget request.

Questions related to this request should be addressed to your regional office contact and your central office standard system maintenance lead.