Problem Report (PR)

Purpose

A PR is a formal document used to record an unexpected result that occurs during formal testing, implementation, or operation of the specified software or hardware. A PR is managed through an established process that includes investigation, resolution, and verification.

Document Lifecycle

A PR may be produced anytime during the Test Phase, Implementation Phase, and/or Operations & Maintenance Phase of a project. When an appropriate resolution has been documented for a specific PR and it has completed full disposition, the PR should be archived as a project record.

Audience

The target audience for the PR includes business, technical, governance, and project management stakeholders.

Roles and Responsibilities

Generally, any individual with access to the specified software or hardware during formal testing, implementation, or operation may initiate a PR.

The following stakeholders have a prescribed interest in the development, content, review and approval, and use of the PR:

Stakeholder	Interest
End User or Tester	Reports an identified problem in accordance with established problem reporting mechanisms, tools and procedures. A problem may be documented by completing the PR form (see template below) or via entry in an automated tool (see additional guidance below).
Project Manager	Ensures a PR is appropriately documented and processed in accordance with established problem reporting procedures. Provides appropriate status reporting as needed.
Government Task Leader (GTL)	Ensures that a PR is delivered and processed in accordance with the requirements of the Statement of Work (SOW) or Task Order (TO).
Business Owner	Participates in making the final decision for resolution of a given PR, especially when the resolution is to create or modify a Change Request (CR). Ensures that the necessary funding is available

	for analysis and resolution of a PR, including test, implementation, and/or production activities associated with the resolution.
System Developer or System Maintainer	Prepares, analyzes, and/or resolves a given PR.
Technical Review Board (TRB)	May review a PR that is determined to be of significant magnitude, complexity, and/or risk in order to assist in determining an appropriate technical resolution.
ESD Peer Review Group [for ESD IDIQ Contract Task Orders only]	May review a PR to identify any issues, risks, or actions that may affect resolution of the PR.
ESD Engineering Review Panel (ERP) [for ESD IDIQ Contract Task Orders only]	May review a PR and provide input to the TRB regarding any IT engineering and technology issues and challenges associated with the PR that may affect its resolution.
OIS Stakeholders (e.g., EDCG, EDG, etc.)	May provide input during analysis and/or resolution of a PR.
IT Infrastructure Implementation Agent or Contractor	May provide input during analysis and/or resolution of a PR.
IV&V Contractor	May review a PR during verification and validation assessment of processes and deliverables for defect-causal and trends analysis.
Configuration (or Change) Control Board	May review a PR and render an appropriate resolution decision, especially when the proposed resolution is to create a new or modify an existing Change Request (CR).

Related Deliverables

The content of the following deliverables should be considered during the resolution of a PR:
- Business Product/Code
- Version Description Document (VDD)
- Project Management Plan (PMP) / Change Management Plan
- Release Plan (new development) or Release Management Plan (maintenance)
- System Security Plan (SSP) and/or Information Security Risk Assessment (IS RA)
- System Design Document (SDD)
- Interface Control Document (ICD)
- Database Design Document
- Data Conversion Plan
- Test Plan
- Test Case Specification
- Test Summary Report
- Implementation Plan
- Contingency Plan
- Training Plan
- Training Artifacts

- User Manual
- Operations & Maintenance (O&M) Manual
- Change Requests

Framework Reviews

For new development projects, as well as operations and maintenance projects, PRs may serve as input to the following System Lifecycle Framework reviews:

Validation Readiness Review (VRR) – During the VRR, documented PRs that have been resolved and/or especially PRs that remain unresolved that are associated with a given system/application release may be reviewed to determine if the release is ready for transition to the target test environment.

Implementation Readiness Review (IRR) – During the IRR, PRs that were documented during the testing of a given system/application release that have been resolved and/or especially PRs that remain unresolved are reviewed to understand the problems encountered with the release during testing and to determine if the release is ready for implementation.

Operational Readiness Review (ORR) [a.k.a., Production Readiness Review (PRR) for maintenance projects] – During the ORR, PRs that were documented during implementation of a given system/application release that have been resolved and/or especially PRs that remain unresolved are reviewed to determine if the release is ready for transition to production for operations and maintenance support.

Post Implementation Review (PIR) – During the PIR, PRs that were documented during a period of sustained operation of the system/application in the production environment (e.g., after all users have been trained and at least one full processing and reporting cycle has been completed) are reviewed to determine if the system/application is operating as expected, and to determine if any improvements can be made to alleviate similar problems from occurring in the future.

Annual Operational Analysis Review – During the Annual Operational Analysis Review, PRs that were documented during a year of sustained operation of the system/application in the production environment are reviewed to evaluate system performance and user satisfaction to determine whether the system/application should continue as is, be modified, or terminated.

Template

A template exists for the creation of this deliverable, which provides a proposed structure and the information content that should be considered for inclusion in a PR.

The template for the PR is available at:
http://www.cms.hhs.gov/SystemLifecycleFramework/03C_Templates.asp#TopOfPage

Other Available Guidance

Each PR should be assigned a unique number for reference and tracking purposes. A workflow should also be defined for processing and approving PRs for a given project or system/application.

PRs may be documented and tracked via a manual process or through the use of an automated tool. For example, all problem reports received by the CMS IT Service Desk are documented using an automated call tracking and trouble ticket system called Remedy. Trouble tickets are managed in Remedy by severity and priority, and problems are tracked from initial report to problem resolution. Other automated tools may also be used if approved by the CMS TRB.

It is highly recommended that key metrics be collected and analyzed for recorded PRs to assist the project in trend analysis. The following are some of the various types of information that might be collected:

- **Date Reported** and **Date Resolved** for use in assessing the actual time duration for completing analysis of PRs;
- **Problem Type** and **Priority** for use in assessing the types of problems reported and their perceived significance;
- **Analyst** who performed the analysis for use in identifying who should address any follow-up questions/issues; and
- **Resolution** for use in assessing the final disposition status of documented problems.