

RxCheck Software Governance Process (2024)

Introduction

Software products are complex systems that require constant monitoring, updating, and testing to ensure their functionality, reliability, and security. Software governance is the process of establishing compliance with standards, policies, and procedures for software development, maintenance, and security. The intended audience for this governance process is the **RxCheck Hub stakeholders**: Bureau of Justice Assistance (BJA), PDMP TTAC, RxCheck Hub system administrators and developers, and RxCheck Governance Board members (Members). Software governance helps to:

- Align software products with the goals, values, and strategies of the RxCheck Hub system;
- Ensure compliance with legal, ethical, and regulatory requirements;
- Manage risks and vulnerabilities associated with software products;
- Enhance the quality and performance of software products; and
- Promote collaboration and communication among stakeholders.

System Administrator Responsibilities

Software maintenance and updates are essential for keeping software secure, functional, and compatible with changing requirements and environments. The best practices for software maintenance and updates cover development, scheduling, and communication to stakeholders and include:

- **Staying Current:** RxCheck Hub system administrators and developers release updates for software regularly. Many of them relate to important security issues. Security related updates will be installed as soon as possible to avoid exposing the RxCheck Hub system to vulnerabilities and threats.
- **Regular Maintenance:** Besides installing updates, other maintenance tasks such as cleaning up temporary files, defragmenting disks, checking for errors, and backing up data will be done routinely. These tasks improve the performance, integrity, and reliability of the RxCheck Hub system.
- **Fostering Relationships:** Effective communication channels with all stakeholders as defined above are critical for operational security and control. Examples include, but are not limited to, prompt information about new releases, bug fixes, and known issues.

- **Documentation:** A comprehensive list of all products and enhancements will be maintained. Examples include documents, versions, licenses, dependencies, and configurations. These help with version control, compatibility, and support, including sunseting earlier versions of RxCheck software. Documentation will be provided prior to the publication of patches, software updates, revisions, and new features.
- **Automation:** As a standard practice, the use of tools and scripts to automate maintenance tasks is encouraged, such as checking for updates, or downloading and installing them, running tests, and generating reports or analytics.
- **System Backups:** A system backup plan in the event of an unexpected issue or failure during the maintenance process is customary practice. Programming code, data, settings, documentation, and system files, including updates and changes, are a primary focus of contingency, backup, and restoration plans. The plans include tests to ensure the backups are functioning properly and are not corrupted.
- **Strategic Impact:** The impact of maintenance activities on the entire system, not just on individual components, is strategically important. RxCheck Hub system administrators and developers will make every effort to evaluate the risks and benefits of changes, updates, and enhancements to the overall system. Evaluation will include the impact on functionality, performance, security, and usability.
- **Urgency:** The prioritization of maintenance tasks will be based on their urgency and importance. Critical updates that address security or stability issues will have the highest priority and be completed as soon as possible. Updates, enhancements, and features will be scheduled at a convenient time for stakeholders with consideration given to impact, level of effort, and costs.
- **Test Changes Incrementally:** Updates and changes will follow programming and development standard practices. RxCheck Hub system administrators and developers use the Technical Quality Assurance (Plan, Do, Check, Act) or comparable model. Initial testing is done in a secure development environment, then moved progressively into limited user testing and then to public testing before deployment to production. Individual components may be tested separately. The same process (Plan, Do, Check, Act) is used once the update reaches production.
- **Communicate with Stakeholders:** Stakeholders will be informed about maintenance, security, and enhancement plans in advance. These notices will include, but are not limited to, any changes or issues that may affect them before, during or after the security, maintenance, or enhancement implementation. Anticipated costs will be included if known. Instructions, delivery methods, impact, and support will be clear, concise, and targeted to the user's environment. Support will include documentation.

The following processes are intended for use by RxCheck stakeholders (Bureau of Justice Assistance (BJA), PDMP TTAC, RxCheck Hub system administrators and developers, and the RxCheck Governance Board.

Maintenance and Security Update Process

Updates that address maintenance, bug fixes, and security will have the highest priority and be completed as soon as practicable. Although these updates do not go through the enhancement approval process described below, there will be notifications to all users about the updates and any expected downtime of the system prior to release. Maintenance, bug fixes, and security updates will be rolled out as necessary and separate from any enhancement updates.

Enhancement Process

STEP 1. Stakeholder submits enhancement request. Enhancement requests can be submitted at any time.

STEP 2. Enhancement requests are reviewed by the Enhancement Sub-Committee (to be appointed). Sub-committee to include technical expertise from system administrators and developers and Governance Board members.

STEP 3. Enhancement Sub-committee reviews and provides recommendations to RxCheck Governance Board.

STEP 4. Governance Board votes on sub-committee recommendations. If any recommendations are not approved, the reasons for the refusal will be identified and the enhancement can be re-submitted with revisions for reconsideration, if applicable.

STEP 5. Approved enhancements go into the queue for funding/development consideration. As the funder/owner of the RxCheck Hub system, BJA has final approval for any modifications and enhancements.

STEP 6. During the development phase, system administrators and developers will give written and verbal updates at Governance Board meetings, or more often as needed, on status, timeline for development, rollout impact, and determination if the enhancement is required or optional. A required enhancement is one that is necessary for the continued function or improvement of the entire RxCheck Hub system. An optional enhancement is one that extends the capability of the RxCheck Hub system without requiring adoption by all Members.

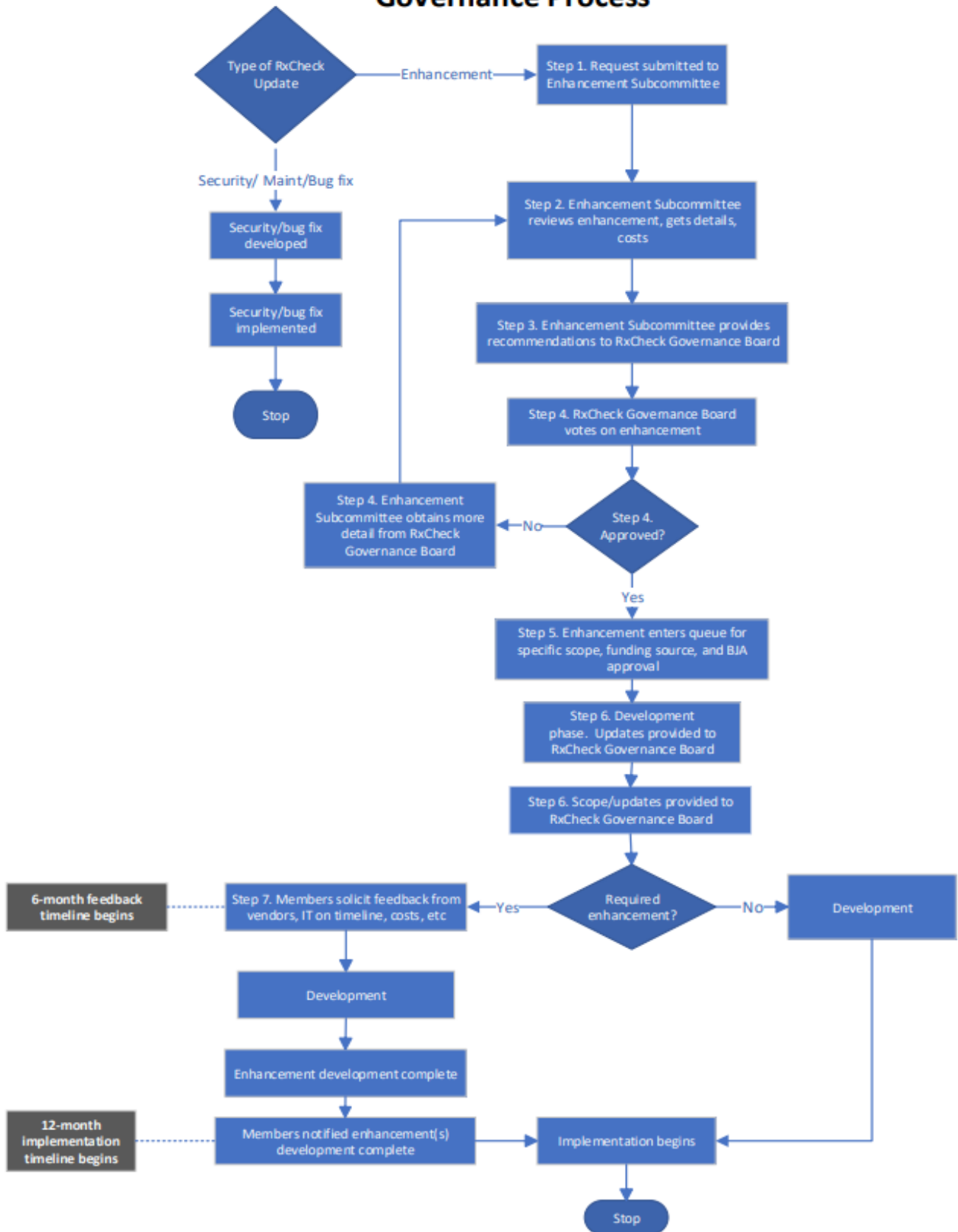
Because the RxCheck Hub system deploys multiple communication paths, it is expected that not all software will be dependent on other RxCheck applications. The RxCheck Hub system administrators and developers will maintain a list of proposed enhancements and their potential impact. However, given the constant changes in technology, proposed enhancements may change in relation to costs, need, and scope. Not all costs or impacts can be known before or during deployments.

STEP 7. Governance Board members will set the timeline for implementation based on information obtained in Step 6.

- Feedback timeline: Members will be given up to six months to solicit feedback from vendors and IT staff on scope of work, timeline, and costs of implementation. The start date for soliciting feedback begins when RxCheck Hub systems developers have provided information to Members on the enhancement's description, development timeline, and impact. Members will be notified prior to the start date of the feedback timeline.
- Implementation timeline: Members will be given up to twelve months for implementation. Start date for implementation begins following completion of enhancement development. Members will be notified prior to the start date of the implementation timeline.
- Timelines do not apply to optional enhancements.

A process flow diagram is included on next page.

RxCheck Software Governance Process



Proposed Enhancement			
Member			
Contact Information			
Enhancement Description (please include desired functionality, project goals, etc.)			
Anticipated Impact:			
<input type="checkbox"/> Console Upgrade	<input type="checkbox"/> Server Upgrade	<input type="checkbox"/> Console & Server Upgrade	<input type="checkbox"/> Unknown
Funding Source Identified:			
<input type="checkbox"/> Yes, Member funding	<input type="checkbox"/> Yes, Member issued grant funding	<input type="checkbox"/> No, Member seeking funding	<input type="checkbox"/> No, please place in BJA funding queue
If funding source identified, please provide any deadline to use funding:			
<i>To be completed by the Enhancement Sub-Committee and provided to the Governance Board with recommendations:</i>			
Approximate timeline to complete development work			
Scope of work (include all impacts to Member via console or server)			
Anticipated rollout method:			
<input type="checkbox"/> Automatic console update (no Member/vendor assistance required)	<input type="checkbox"/> Optional server upgrade (no security impact)	<input type="checkbox"/> Mandatory server upgrade (security impact)	