

# ROGER WILLIAMS UNIVERSITY

## Change Management Procedure

### Overview

Change Management is the process of recording, evaluating, approving, planning, and overseeing the implementation of a change in a controlled and efficient manner. A change is an addition, modification or removal of a service or service component and its associated documentation.

### Scope

This document defines the Roger Williams University Information Technology (IT) Department Change Management procedure. The Change Management Procedure document must be reviewed by all Roger William University employees who are proposing a technology change, relative to technology infrastructure, information security, software, white lists requests or other technology related services.

### Objectives

Roger William University's objectives for the Change Management process are:

- Maintain a single repository for recording all changes.
- Ensure the process is adopted, adhered to, and escalated if there are compliance issues.
- Initiate the Change Management process to provide sufficient lead time for adequate impact analysis.
- Ensure good controls applied to changes
- Communicate changes to IT and affected University constituencies.
- Streamline the procedures so that there is an appropriate balance between the complexity of the change and the required controls.

### Primary Benefits of Change Management

- Improve customer relations and perception through better communication, less downtime, and higher quality service
- Require that all changes are thoroughly tested and that each deployment includes a back-out plan to restore the state of the environment in the event that the deployment fails.
- Ensure that the configuration management system is updated to reflect the effect of any changes.
- Decrease time and resources spent 'fire-fighting'

- Reduce frequency of unplanned service interruptions
  - Create a more stable infrastructure with better understanding of cross-group relations
  - Improved risk assessment and mitigation
  - Establish better understanding of potential user impact
  - Assure that all proposed changes are evaluated for their benefits and risks, and that all impacts are considered.
- Prioritize changes so that limited resources are allocated to those changes that produce the greatest benefit based on the business need.

## Procedure

This procedure will ensure that changes within the defined scope must go through the Change Management procedure and must have a completed request for change (RFC) with appropriate approvals. If a change needs to be scheduled outside of a change window, the change's implementation date/time needs approval from the appropriate parties. Also with each change, the following Plans must be accounted for: implementation plan, test, communication, and back-out plans.

## Request for Change (RFC) Procedures

A Request for change is the first step needed in order to change a current procedure or function that is currently implemented. All formal change control procedures will be documented and all changes will be entered on the IT calendar. If a change needs to be scheduled outside of the proposed window, the change's implementation date/time needs approval from the appropriate party.

A risk assessment will be performed for every new change that is executed. Each change will also be well-tested and verified prior to implementation.

In order for there to be a change made: First there must be a Creation of Request, then the change must be Reviewed and Assessed, Planned, Tested, Proposed, Implemented, Reviewed and lastly, the entire process must Conclude.

## Creating a Request for Change

Details that may be found in a change request include:

- Incidents that necessitate the change
- Description of how the change would be implemented
- The impact that the change would have on all associated systems
- A risk assessment
- Contact information for everyone involved in the change
- An outline of who will need to approve the request
- A backup plan to follow in case the change is not successful

## Reviewing and Assessing a Request for Change

- Evaluate the request based on its practicality and priority
- Determine whether the request is reasonable and to give feedback related to the request.
- Practical requests will be evaluated according to the originator of the request, the impact that making a change would have on the University, the estimated return on any investment made in relation to the request, and the resources that are needed to fulfill the request.

## Planning the Change

Plan the change as if it is going to occur. A change plan outlines the course that the change will take, the resources that are needed to complete the change, and a timeline for implementation.

## Testing the Change

If a change relates to debugging software or otherwise changing a system, the IT department may need to test the change before it is approved. A small-scale test will demonstrate the procedure to be followed in case the change request is approved. Testing the change also gives IT the opportunity to work out any problems in the procedures that may develop.

## Creating a Change Proposal

A change proposal outlines the type of change, the priority associated with a change request, and the outcomes that could occur if the change is not made. The requesting party's proposal will be given to the person empowered to authorize the change, so it is important that they provide a thorough explanation of why a change needs to be made. For example, a change with a high-priority level may result in outages that will affect customers and result in revenue losses. The people who authorize changes must be aware of the severity of the impact.

## Implementing Changes

Implementing a change is not a simple process. The change has to be built during the planning process, and implementation is just one step in the change management process. Once the change has been made, tests must be done to determine whether the desired results have been achieved. If the change is not successful, remediation methods may be used to determine what went wrong and to implement a backup plan to alleviate the issues that necessitated the change request.

## Reviewing Change Performance

The post-implementation review is an essential part of the change management process. As an IT professional, it is important to understand whether the change procedures are working as expected. This includes reviewing records to determine whether the change was successful or failed, and recording details about the time and expense of the change to determine the accuracy of estimates that were made before a request was fulfilled. Reviewing change performance gives IT the opportunity to fine-tune the proposed change management process for better results in the future.

## Concluding the Process

Make sure that the entire process has been documented in a database that all stakeholders can access. Once this documentation has been made, the process is closed out.

## Changes

### Types of Changes

Changes are categorized into three types based on the required workflow and approval procedure. The types are:

- **Standard** – Pre-approved based on change model
  - Standard changes are changes to a service or to the IT infrastructure where the implementation process and the risks are known upfront. These changes are managed according to policies that are the IT organization already has in place. Since these changes are subject to established policies and procedures, they are the easiest to prioritize and implement, and often don't require approval from a risk management perspective.
- **Normal** - Change that follows normal approval flow
  - Normal changes are those that must go through the change process before being approved and implemented. If they are determined to be high-risk, the Chief Information Officer must decide whether they will be implemented.
- **Emergency** – immediate incident-related change. May be documented after the fact.
  - Emergency Changes arise when an unexpected error or threat occurs, such as when a flaw in the infrastructure related to services needs to be addressed immediately. A security threat is another example of an emergency situation that requires changes to be made immediately.

### Scope of Changes

The scope of a change is determined by the range of its potential impact on services. The broader the potential impact on services, the wider the scope. Scope is categorized as follows:

- University/Campus – One or both campuses (Bristol and Providence)
- Significant – A school or 2 or more departments
- Department – A single department
- Minor – Five or less individuals (faculty, staff and/or students)

## Maintenance

Change Control meetings are held monthly in order to assist all communicating changes. If any changes require migrating data from one server or application to another, data integrity tests will be conducted. Updated documentation will include procedures for any emergency changes as well as any patch management.