Information Technology Services Change Management Procedures

Introduction

All changes to an IT resource, system or service must follow the standard procedure outlined below to ensure appropriate resourcing, planning and execution.

Change Classifications and Definitions

Changes Categories

Routine   A **routine change** is a *scheduled change* that is done routinely to maintain or tune a resource, service or system, e.g., performing Windows updates on a server, installing a security patch on an appliance. Routine changes have a "Minor" Client Impact Rating and a "Low" Technology Risk (see "Technology Risk Rating" and "Client Impact Rating" below)

Standard   A **standard change** is a *scheduled change* that has a "Moderate" Client Impact Rating. Standard changes have the potential to impact a larger portion of the user community, e.g., a network switch upgrade in a building that may impact multiple departments

Enterprise   An **enterprise change** is a *scheduled change* that has a "Moderate" to "Major" Client Impact Rating and has the potential to impact University operations, e.g., taking the "my.brocku.ca" portal offline for upgrades or maintenance

Emergency   An **emergency change** is an *unscheduled change* that has a "Moderate" to "Major" Client Impact Rating but must be performed quickly to address a service outage, prevent an outage, or fix a critical problem, e.g., deploying a critical security patch to all Windows servers, restarting the entire wireless network in order to address a performance issue.

Technology Risk Ratings

Low   A technology change with little or no interactions with other resources, services or systems, e.g., Bomgar, KACE, stand-alone Windows servers

Significant   A technology change with increased interactions with other resources, services or systems, e.g., "Radius Authentication" (affects wired and wireless services), e-mail

High   A technology change with many interactions with other resources, services or systems, e.g., network core routing, netApp enterprise storage.

Client Impact Ratings

Minor   A change that has the potential to disrupt a group of **1-25 users**

Moderate   A change that has the potential to disrupt a group of **26-100 users**

Major   A change that has the potential to disrupt a significant group of over **100 users**

Change Classification Matrix

Change Category	Technology Risk	Client Impact Student/Faculty/Staff	Change Approval Required
Routine	Low	Minor	No*
Standard	Low	Moderate	Yes
Standard	Significant	Moderate	Yes
Enterprise Change	Significant	Major	Yes
Enterprise Change	High	Moderate / Major	Yes
Emergency	High	Major	Yes

*While "Routine" changes are still documented and scheduled, after initial approval, subsequent approvals for the same change are not required, e.g., weekly Windows server patching which occur during a regularly scheduled maintenance period.

Maintenance Windows

ITS maintains specific scheduled times in which work on resources / services / systems is *preferred* in order to minimize disruptions. The times listed below are listed as maintenance times on specific pages (e.g. Webmail, Portal, Sakai) in order to notify our users that work *may* be performed during these times and therefore the resource / service / system may be unavailable. Work may be performed outside of these scheduled maintenance windows but must be communicated (see "Communications" below).

Scheduled ITS Maintenance Windows

Change Category	Change Window	Notice required
Routine	No predefined window	Not Applicable
Standard	Monday – Friday 6:00 AM – 8:00 AM	5 Business Days
Enterprise	Saturday 12:00 AM – 10:00 AM	10 Business Days
Emergency	Determined by Change Manager and/or ITS Director	Determined by Change Manager and/or ITS Director

Maintenance Freeze Periods

Annual times for maintenance freeze	Change Category Allowed
4th week of August to 3rd week of September	Routine and Emergency
The week-and-a-half before the Christmas Break (Payroll)	Routine and Emergency

Roles and Responsibilities

Change Manager

The Change Manager is responsible for managing Change Management for ITS. This individual focuses on the change process as a whole rather than the specifics of the work within each individual change. The Change Manager's responsibilities include:

- Ensuring that Change Requests are formatted and submitted to the CITS-Activity Calendar from Change Initiators
- Maintaining the CITS-Activity Calendar and its membership
- Facilitating CAB meetings
- Reviewing Technology Risk and Client Impact Ratings for all submitted Change Requests
- Publishing Change Notifications to the community
- Documenting, publishing and assessing compliance with the Change Management process
- Reviewing, evaluating and maturing the change process.

Change Initiator

All members of ITS are permitted to submit change requests as Change Initiators. Change Initiators are responsible for:

- Initiating change requests by completing the Change Request Template and submitting it to the CITS-Activity Calendar
- Assuring that all change requests are documented and linked to either a Footprints Ticket or Footprints Project Number
- Assisting the CAB when further information is required about pending change requests.

Change Advisory Board (CAB)

The Change Advisory Board is a group of individuals that formally meet to review change requests. The CAB is comprised of departmentally-appointed individuals to act as contributors and is chaired by the Change Manager.

- The CAB Meets every Tuesday morning, at 9:30 to review and schedule change requests (see "Change Request Process")
- The CAB as a whole **Approves**, **Denies** or **Recycles** proposed change requests and documents the change of status in the CITS-Activity Calendar.
- At the conclusion of the CAB meeting, members pass along Change Management related information to the Change Initiators/Staff in their respective departments, e.g., if a change request was moved due to a scheduling conflict, or more information is required for a particular change request.

Emergency Change Advisory Board (ECAB)

The Emergency Change Advisory Board is a group of individuals that must meet in extraordinary circumstances in order to approve an Emergency Change Request. Emergency change requests requiring an ECAB are un-planned and require the approval from one of the following prior to change implementation:

- AVP, Information Technology Services
- Director, Application Development
- Director, Client Services
- Director, IT Infrastructure.

Emergency change requests still need to be recorded in the CITS-Activity Calendar (using the Change Template) but are expedited in order to recover from a critical resources, service or system outage.

Communication Plan

In order to keep the University community informed of changes and planned maintenance of IT resources, services and systems, the Change Manager must:

- Keep the CITS-Activity Calendar up-to-date with all change requests, important dates and maintenance freezes

- Ensure that web systems such as Webmail, LMS and the portal have the maintenance schedule identified on their log-on pages
- Post approved change requests to the my.brocku.ca portal identifying the work being performed, who it may affect, the scheduled date and duration
- Additional e-mails may be sent to individuals/groups at the discretion of the Change Manager

Change Management Workflow

Change requests must reference a Footprints ticket or project number. The Footprints system is where all of the information regarding the specifics of the Change Request are to be kept. The detailed information in the ticket must include, but is not limited to:
- Work required
- Required resources (people/teams)
- Resources / services / systems affected
- Users / groups affected
- Work plan
- Back out plan

Change Request Statuses

All Change Requests are submitted to the CITS-Activity Calendar with the starting status of *Proposed.* Statuses explained:

Proposed   A proposed change awaiting CAB review

Approved   A CAB reviewed change that is approved to proceed

Recycled   A CAB reviewed change that requires more information or needs to be rescheduled based on resource availability

Rejected   A CAB reviewed change that is not approved to proceed due to insufficient planning, resources or not referencing a Footprints ticket or project number

Procedure for Routine, Standard or Enterprise Change Requests (CAB Changes)

1. The Change Initiator creates Footprints ticket/project
2. The Change Initiator submits change request (using "*Change Template*") to the CITS-Activity Calendar as a proposed change
3. The CAB reviews the change request in the CITS-Activity Calendar and as a group Approves, Recycles or Rejects the individual change request
4. The CAB Contributors notify their individual department/change initiators of changes that are allowed to proceed

5. Using the Communication Plan, the Change Manager communicates the upcoming approved changes
6. Work on the Approved Changes is performed and tracked in Footprints.

Procedure for Emergency Changes (ECAB Changes)

1. A service outage, vulnerability or proactive event is identified and recorded in Footprints by anyone
2. The Footprints ticket is immediately escalated to a supervisor/manager/director
3. Any available CAB members and/or an ITS Director (as the ECAB) meets with ITS Staff knowledgeable with the situation to discuss course of action, and approve the Emergency Change
4. The community is notified of the emergency work being performed
5. The Emergency Change Request is posted to the CITS-Activity Calendar
6. Footprints ticket(s) are updated throughout the work.

Appendix A – Change Template

Changes are to be tracked using the CITS-Activity Calendar in Exchange (accessed through Microsoft Outlook). The following template must be included the in body of each Proposed Change Request (as a calendar event):

SUBJECT: Insert BRIEF Title along with Footprints Ticket or Project Number here.

STATUS: PROPOSED

PROPOSED CHANGE SUMMARY: Provide a quick summary of the proposed Change Request.

OTHER INFORMATION: Place to provide any other information regarding this Change Request.

PROPOSED CHANGE TIMELINE: Provide information regarding the proposed date and time for the actual work to be performed.

CHANGE CATEGORY: (The Change Initiator selects the appropriate Change Category).

> Routine
> Standard
> Enterprise
> Emergency

TECHNOLOGY RISK: (The Change Initiator selects the appropriate Technology Risk from the Technology Risk Rating assessment).

> Low
> Significant
> High

CLIENT IMPACT: (The Change Initiator select the appropriate Client Impact choice based on the Client Impact Rating).

> Minor
> Moderate
> Major

RESOURCES: (The Change Initiator indicates the individuals/teams required as a quick-reference to perform the work for this change).