ITS Enterprise Change Control Process Guide

REVISION CONTROL

Review / Approval History

Review Date	Reviewed By	Action (Reviewed, Recommended or Approved)
10/21/11	Josh Callahan	Drafted
12/21/11	ECCG Group	Reviewed and Edited
02/15/12	ECCG Group	Finalized and Approved
03/04/14	Sabre Stacey	Edited
12/18/15	ECCG Group	Reviewed and Edited
4/22/16	MH Swank	Sections added: New Services Readied for Prod & Short-term outage communications
8/26/16	ECCG Group	Approved updates and changes
9/7/18	ECCG Group	Service type and impact redefined and clarified
9/21/18	ECCG Group	Adjusted language and added clarification to creation of change logs/requests
2/19/19	Troy Butolph	Revised/Restructured

1.0 Purpose

As part of our shared goal of keeping infrastructure invisible and available, changes to production systems need to happen in a thoughtful and measured way. In addition, new services being prepared to go into production also require documentation and secondary review even though they are not (yet) a change *to* production. The package of service and system documentation, change procedures and new service review forms put together here is intended to help ITS staff manage the inevitable changes that need to happen to our services in a way that reduces the negative impacts to users as much as possible.

Communication in change management cannot be overstated. Regardless of impact level or service type, don't hesitate to notify others of a change, even if there is a question on if you think it is necessary.

2.0 Basic Workflow - Changes to Production

2.1 If the change includes deploying a new service or system to production, then a new service or system profile should be created and approved as described in section 3.0.

a) If the change includes a service or system which is already in production but has no associated profile, then a new profile should be created and follow the approval processes as defined in section 3.0 with the understanding that the approval process may take place after the proposed change is approved. The exception to this would be if the change is to decommission the associated service/system in which case the profile would not need the described go-live forms.

b) Discovery of a missing system or service related to the change should be reported to your lead so that a plan to create the profile can be established.

2.2 Create or update the **Change Procedure** for the change being made (https://hsu-forms.humboldt.edu/its_internal/node/add/change-procedure)

a) **LEVEL OF IMPACT:** Define the impact of the change procedure with input from the technical lead. Change procedures which can span a number of impacts depending on what is being done should be marked at the lowest impact they cover as the change request can be marked with a higher impact than the procedure itself.

i) Low - No anticipated downtime and potential downstream effects limited to few users (Examples: Minor configuration change using system interface, simple code update to custom application, standard updates to workstation OS or applications)

ii) Medium - System/Service minor outage required or potential downstream effects could result in department-level operation disruption (Examples: Monthly updates to core servers/services)

iii) High - System/Service major downtime required or potential downstream effects could result in campus-level operation disruption (Examples: Major version upgrade, Untested and potentially impactful configuration changes, high level GPO changes)

b) For quick reference, here is the approval process based on impact and service type:

Impact / Service Type	LOW Impact	MEDIUM Impact	HIGH Impact
Mission Critical/L1	**Change Procedure: Internally Approved.** **Changes documented in Change Log. ECCG Notification Optional.**	**Change Procedure: ECCG Approved.** **Change Request: Internally Approved.**	**Change Procedure: ECCG Approved.** **Change Request: ECCG Approved.**
Mission Supportive	**Change Procedure: Internally Approved.** **Changes documented in Change Log. ECCG Notification Optional.**	**Change Procedure: ECCG Approved.** **Change Request: Internally Approved.**	**Change Procedure: ECCG Approved.** **Change Request: Internally Approved.**
Internal	**Change Procedure: Internally Approved.** **Changes documented in Change Log. ECCG Notification Optional.**	**Change Procedure: Internally Approved.** **Changes documented in Change Log. ECCG Notification Optional.**	**Change Procedure: Internally Approved.** **Changes documented in Change Log. ECCG Notification Optional.**

2.3 Create the **Change Request** or **Change Log** for the actual change.

a) For **High Impact** changes to **Mission Critical** services, approval by the Enterprise Change Control Group (ECCG), is required and a change request should be used to track this. A change procedure should be written once and approved by the Enterprise Change Control Group as well. When an actual change is proposed, requestors should reference this approved procedure.

i) Fill out a change request form (https://hsu-forms.humboldt.edu/its_internal/node/add/change-request) describing the change that you are planning to make, how you have/plan to test, who you are communicating with, and your backout plan.

ii) Wait for approval before making your change in production. Three members of the ECCG are required for approval, and will respond within 1 business day of the request. If more than 1 business day has passed or if change needs to occur before 1 business day, then reply to the approval email and include 8@humboldt.edu (IT management group) as well. Regardless of the number of approvals, all open questions/concerns in the approval thread would need to be approved before the change can take place.

- Corrections based on ECCG feedback should be made to the active change request if minor in nature. If major changes are needed before approval can be given then the active request should be archived and a new change request submitted with the changes to undergo the approval process.

iii) Implement approved change.

iv) Evaluate impact and update documentation as described in section 2.4.

v) A one time change (one without a corresponding change procedure) in this category should state so in the change request.

b) For **Medium Impact** changes to **Mission Critical** and **Mission Supportive** systems and **High Impact** changes to **Mission Supportive** systems, a change procedure should be written once and approved by the Enterprise Change Control Group. When an actual change is proposed, requestors should reference this approved procedure in their internal review process. Those changes can then be added to the ITS Change Log. While the ECCG recommends departments create an internal change review process, no submission to ECCG is required.

i) A one time change (one without a corresponding change procedure) in this category should state so in the change request. This change request would require three members of the ECCG approval in the absence of an approved change procedure.

ii) If a medium impact change does not have an ECCG approved change procedure and is not a one time change:

- Complete an ITS Change Procedure at https://hsu-forms.humboldt.edu/its_internal/node/add/change-procedure .

- Wait for approval of the change procedure before making your change in production. Three members of the ECCG are required for approval, and will respond within 1 business day of the request.

iii) Implement approved change.

iv) Evaluate impact and update documentation as described in section 2.4.

c) For **Low Impact** changes to all services and all changes to **Internal Services** or systems, a change procedure should be written and approved internally by the lead or manager in your group. A one time change (one without a corresponding change procedure) in this category should state so in the change log.

When an actual change is proposed, requestors should reference this internal procedure in their internal review process. Those changes can then be added to the ITS Change Log. While the ECCG recommends departments create an internal change review process, no submission to the ECCG is required.

2.4 Review the change procedure to ensure it accurately represented the actual change and make any updates appropriate to the procedure. If impact or communication plan is changed, your lead will need to approve the change through an internal review process. Changes to the approver should have the previous approvers approval. Other changes would not require approval but affected parties should be kept in the loop.

3.0 New Services Readied for Production

The following must be completed before any new service is moved to production or before an existing service undergoes a significant upgrade. This should be accomplished well in advance of the planned move to production and a **Change Request** should be filled out specifying the actual go-live event. All forms are available online with the change request and service/system profile forms.

3.1 Create or update the appropriate profile form to document your **Services** (the application or processes with which people interact) and **Systems** (the computers or appliances which those run on). Examples of the ITS System Profile and ITS Service Profile templates can be accessed electronically at https://hsu-forms.humboldt.edu/its_internal/node/add/system-profile and https://hsu-forms.humboldt.edu/its_internal/node/add/service-profile .

a) **SERVICE TYPE:** Define the criticality of your service with the help of the owner(s):

i) Internal - Downtime is acceptable at discretion of system owner (Examples: Oramon, Check Mk, ITS_Internal, Men and Mice, Clover, etc)

ii) Mission Supportive - Limited downtime does not disrupt greater campus operations (Examples: SCCM, KBOX, JAMF, Labstats, etc)

iii) Mission Critical - Downtime for systems is highly disruptive to campus or departmental operations or contains Level 1 data https://its.humboldt.edu/security/protected-data (Examples: CAS, Portal, Core Network Infrastructure, Core DBs, SHC Servers, IDM, Directory Services, P4P, etc)

3.2 **Prior to moving into Production**, a Go-Live Approval form must be completed, noting both the primary and secondary administrator performing the review and emailed to eccg@humboldt.edu for approval to move the service to production. This ensures that all appropriate profiles, testing, scans, firewall exceptions AND the appropriate code/configuration review forms have been completed. Once approved, ECCG will attach the approved form to the service profile.

3.3 For **HSU custom code** a Code Review form must be completed; this also requires the code and the form be reviewed by a second developer. Attach this document to the service profile.

3.4 For **applications purchased, downloaded or hosted,** a Configuration Review form must be completed; this also requires the configuration and the form be reviewed by a second administrator. Attach this document to the service profile.

4.0 Decommissioning a Production Service

A change request should be submitted for the service explaining if the functionality is being moved to another service or if the service is no longer needed. Obviously the functional owner specified on the system/service profile should be aware of and OK with the decommissioning; this should be documented in your change request. After the service is decommissioned the Archive checkbox should be checked on the associated profile.

5.0 Peak Business Cycle and Change Freezes

5.1 No changes to production systems/services should be planned during peak business times such as the start/end of terms and registration. Certain systems/services have peak periods isolated to that system/service and should not be modified during those times either. These times are approved by the IT Management group (8@humboldt.edu) and defined on the Peak Business Cycle web page.

a) Fixes to newly discovered issues during these times may be allowed, especially if they significantly impact the affected system, but should be marked as an emergency change and would need to be approved through the ECCG as if they were a High Impact change to a Mission Critical system.

b) Certain procedures to specific systems can specifically state that regular maintenance should occur during change freezes. In these rare cases it would be established that maintaining the normal frequency of changes is ultimately a lower risk than delaying them.

6.0 Misc

Situations not described in this guide should be brought to your lead so that guidance can be given on how to proceed.

Appendix A: Systats and Campus Notifications

Plan your changes in order to give appropriate notice to the users of the service being affected.

Outages greater than 5 minutes:

	Examples	**Required Advance Notice**
Planned Campus Wide Outage	Entire Network/Phone System Outages	Notification at least 1 week before. Always notify helpstaff@humboldt.edu, systat and communicate broadly with the customer base. Campus Portal Announcement.
Planned/Scheduled	Upgrades, patches, rolling out new functionality	Notification at least 1 Day before. Always notify helpstaff@humboldt.edu, systat and communicate broadly with the customer base.
Urgent	Preventing problems tomorrow, must restart service to free up memory or allow a scheduled process to run	Systat with 'degraded status' posted once problem is found. If scheduling an after hours fix, notify ASAP, no later than 3 PM. Always notify helpstaff@humboldt.edu and communicate broadly with the customer base.
Emergency Change	System down or broken	Immediate Systat. Engage ITS emergency communication procedure if problem or solution is unknown.

Short-Term Outages (less than 5 minutes):

Timing	**Communication needed?**	**Information to convey**
During normal business hours*	Mandatory	Time window within which outage will take place Names (eg PeopleSoft) or categories (eg internet access) of systems affected Reason for outage (what is being fixed and why it's important to fix during the workday)
Outside normal maintenance window but not during normal business hours	Recommended	Time window within which outage will take place Names (eg PeopleSoft) or categories (eg internet access) of systems affected

**Normal business hours are 8am-5pm Monday-Friday*

Unless you have specific instructions on how users should respond during the short-term outage, users should be advised to “wait a few minutes and try again. If the system remains inaccessible after five minutes and no other communication has been sent out by ITS, users will be advised to submit a Help Desk ticket.”

Consult the **Communication Methods** below for the best avenue for delivering your notification, the ITS Technical Writer may be of help.

Communication Methods:

Customer communication methods may vary by service. Discuss with your supervisor or director to determine the best method(s) to communicate your change in addition to Systat and notifying the Help Desk. The ITS Technical Writer may also be of help in this process. It’s a good idea to document this in the change procedure.

Type of communication	**Systat**	**Portal**	**Email**	**ITS web p**	**U-Notices**	**Door hanger/pos**
Urgent technical, all-campus	X					
Non-urgent/scheduled all-cam	X	X*		X	X	
Specific groups/departments		X**	X			X
Internal ITS		X	X	X		

* *All-campus messages must be run past your manager first* **Relevant portal pagelets only*

Chancellor’s Office System Outages

Communications regarding enterprise systems affecting HSU and managed by the Chancellor’s Office are as follows:

Unscheduled Outages: Once an outage notification is received, the ITS Project Office will initiate both a systat and portal Campus Announcement to advise the campus community of the outage, as well as any updates.

Scheduled Outages: Once a scheduled outage notification is received, the ITS area responsible for the affected service will be responsible for notifying the affected business units using the “Planned/Scheduled” notification method, outlined above.