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Approved: September 24, 2017

A. Purpose

To regulate changes to hardware and software maintained by Information Technology Services (ITS) to support production systems and services.

Change Control Requests (CCR) are submitted to the Change Advisory Board (CAB), composed of CIO appointed members, or the Emergency Change Advisory Board (ECAB), composed of the CIO and direct reports.

The CAB will review, approve or deny, the non-emergency CCRs that have been marked "New" in the Change Control system. This will occur during one of the weekly meeting.

The ECAB is responsible for approving or denying emergency CCRs.

B. Scope

This procedure governs, but is not limited to, changes made to hardware and software in production by or on behalf of:
- all staff members of ITS
- ITS vendors
- designated ITS liaison representatives within the university

Directors have the final decision regarding the need for a formal CCR versus using incident management and internal notification.

C. Procedure

Change Control Requests shall include the following:
- Confirmation of testing and signoff by appropriate parties
- Unless there is a significant approved deviation from procedure prior to a CCR, there should be an ITS project or incident ticket created
- Summary of change
- Updated documentation (if applicable)
- Roll-back plan to be implemented in the event of failures or issues
- Impact (who will this impact) / Risk

An ITS staff member will complete the online CCR Form.

There are three categories of CCRs:

1. **Standard Change**: A relatively low-risk change with well-understood outcomes that is regularly made during the course of business. A standard change follows pre-determined processes, is pre-approved by change management processes and may be made at the discretion of an individual employee, provided it has been defined as Standard per the Change Management assessment process.
    a. Service Requests as defined in the service catalog.
    b. Ex: Lifecycle replacement

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2. **Normal Change**: A Normal change is one that has medium to high risk for critical services, involves less understood risks, has less predictable outcomes, and/or is a change that is not regularly made during the course of business. Because of the ability to affect downstream or upstream services, any proposed normal change must be reviewed and authorized by the Change Advisory Board.
   a. Within this change the impact is assessed as minor (low risk & impact); Significant (medium risk and impact); Major (High risk and impact).
3. **Emergency Change**: This is similar to a Normal change, but must be executed with utmost urgency for the immediate and continued operation of essential university functions and required to be implemented before the required Change Advisory Board members are able to review and approve. There may be fewer people involved in the change management process review, and the change assessment may involve fewer steps, but any Emergency change must still be authorized by at least one member of the E-Cab. The requestor will submit the CCR after the change has been made, and the CCR will be approved post-change by the committee. If prior approval (email or verbal) was obtained, then documentation of the approval will be included in the CCR.

Change Requests that are not considered *Emergency* will be reviewed for completeness, accuracy, and impact to campus community. The Change Advisory Board members are responsible for reviewing the new CCRs. Issues, concerns, or suggestions must be documented in the Change Control system. Each Change Control Committee member has the option to ask the requestor to present additional documentation if necessary.

For a CCR to be considered approved or rejected it must have been reviewed and approved or rejected by the change advisory board with representation from each:

IOS
ESS
CSS

The Change Advisory Board may mark the request as "On Hold".

Notifications generated by the Change Control systems will serve as official notice.

The director of the department implementing the change is responsible for verifying that the change occurs on schedule and that the results are reported. Any changes not completed within the time frame defined or implemented outside of the approved date and/or time should be reported to the Change Advisory Board by the beginning of the following workday. Problems associated with a change should be documented and attached to the originating project request or change ticket.

Once the change has been implemented it is the responsibility of the <u>requestor to fill out the Completion section</u>.

D. Risk and Change Type Matrix

First, determine the priority level of the component or service. Then assess the risk of the proposed change to negatively impact that service – low, medium or high. The matrix shows whether the type of change is then Standard or Significant. (Note: an Emergency change is the same as a Normal change, but with an expedited timeline.)

For example: A high-risk change to a priority 1 IT service (or IT component) is a normal change. A low-risk change to a priority 3 service is a standard change. A medium-risk change to a priority 2 service may be standard or normal.

	Risk: Low	Risk: Med	Risk: High/Guaranteed	Examples:
<u>Priority 1 Service</u> Crosses organizational	Standard	Normal or Emergency	Normal or Emergency	

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boundaries, serving the business functionality of many units. Is critical to the ability of the University to meet its business and regulatory obligations, support the delivery of education, or administer research. Has strategic value to the campus such that encouragement of widespread use is desirable.				
Priority 2 Service The system is a feeder to Priority 1 systems; or is a system that does not cross organizational boundaries, but is still critical to the ability of the University to meet its business and regulatory obligations.	Standard	Standard or Normal or Emergency	Standard or Normal or Emergency	
Priority 3 Service Any departmental system that supports the internal operations of any department or departmental function and does not cross organizational boundaries.	Standard	Standard	Standard	

*Information borrowed from Oregon State University

E. Change Request Form Definitions

Title: Brief description of the purpose of the change.

Status: The status of the CCR.
- New – Entered but not approved, implementation may not begin
- Approved – Approved by the Change Control Committee, implementation may begin
- On Hold – A member of the Change Control Committee has requested this change not be implemented until addition information has been received.
- Completed Without Issues - No problems making the change, CCR is closed
- Completed With Issues (add details to Comments) – Problems noted and resolved in Comments section, CCR is closed
- Unsuccessful or Canceled (add details to Comments) - CCR was not completed, reason stated in Comments section, CCR is closed

Change Request Source: The source of the change request
- Ticket – Ticket from the help desk system
- Project – Project from the project system
- Other – Please add details to Comments section

Change Request ID: The ID number from the project or task, if converted from incident N/A.

Change Description: Describe the proposed change.

Requestor: Name of individual requesting the change (typically outside party from ITS).

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Responsible Party: This is the ITS member who owns the change. (Requestor and implementer cannot be the same individual)

Change Reason: The reason for the change.
- New deployment - Deployment of hardware, software, or service
- New functionality – Deployment of additional functionality to existing hardware, software, or service
- Maintenance - Routine hardware or software fixes, patches etc
- Other – Changes which do not fall within previous categories

Implementation Date & Time: Date the change control is to be implemented. If an emergency change, then this is the date of approval.

Probability of Failure: The possibility that the change will result in a failed outcome.
- Rare
- Unlikely
- Possible
- Likely
- Almost Certain

Description of Impact & Risk Level: Low or High based on impact to the university if the change fails or causes a service outage. With an explanation of the ramifications if the change fails. Describe the impact to the campus of the change and any risks that success or failure may incur

Systems Affected: List of potential systems affected by the change (ex: Banner, mySeaport, etc.)

Testing & Back Out Plan: Describe testing plan and outcome. Describe action items if change is aborted.

Implementer: Individual(s) responsible for implementing the change.

Approvals: Each member of the Change Advisory Board has the ability to Approve or place On Hold a change control request by selecting the appropriate action.

Solution Tested and Documented: Once the change has been implemented the requested will make sure all post implementation testing has been completed and accept by the proper person.

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Appendix A

Definitions

Definitions adapted from Information Technology Infrastructure Library (ITIL). See http:// en.wikipedia.org/wiki/Information_Technology_Infrastructure_Library.

Assurance - The level of confidence that the change will go as planned and is determined by experience and complexity.

Change - The addition, modification or removal of approved, supported or baselined hardware, network, software, application, environment, system, or associated documentation.

Change Advisory Board - A group of people who can give expert advice to change management on the implementation of changes.

Change Control - The procedure to ensure that all changes are controlled, including the submission, analysis, decision making, approval, implementation and post implementation of the change.

Change History - Auditable information that records, for example, what was done, when it was done, by whom and why.

Change Log - Auditable log of all Changes that records who, what, why, and when for all changes. This may be system specific as certain systems have the ability to automatically log changes in this manner.

Change Management - Process of controlling changes to the infrastructure or any aspect of services, in a controlled manner, enabling approved changes with minimum disruption. Change Request (CR) - The compilation of changes described by the service owner which will affect existing services.

Emergency Change - This is similar to a Normal change, but must be executed with utmost urgency. (See "C. Procedure" for more information.)

Impact - Determined by potential disruption to customers and dependent systems.

IT Component - A system, device, application or document that is part of an IT Service.

IT Service - An IT Service is a customer-oriented offering and/or consumption of a technology based transaction. For example, DNS is not considered to be an IT service, for it is not experienced by customers as a transaction or offering. Instead, it is considered to be an IT component.

Normal Change - A change with less well-known risks or less predictable outcomes, and/or a change that is not regularly made during the course of business.

Peer - Another IT professional that can review a change and understand the technical elements involved.

Risk - Is determined by a combination of the relative assurance that a change will happen as expected and the potential impact of a change should it not go as expected.

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Standard Change - A change with readily known risks that is regularly made during the course of business, and whose outcomes are predictable.