ITS Change Management Policy

Revision 3.0 Original drafted March 5, 2002
Revision 3.1 Version Update November 28, 2011
Revision 3.2 Current Version Updated March 19, 2012

NORTH CAROLINA CENTRAL UNIVERSITY
FOUNDED 1910
INFORMATION TECHNOLOGY SERVICES

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Scope

This policy statement provides direction on the application of change management for server and infrastructure devices supporting NCCU internal and perimeter networks. For the purposes of this policy, a change is defined as any alteration to software, hardware, or other aspect of the data processing environment and its attached networks.

This policy applies to all employees, contractors, consultants, temporaries, and other workers at NCCU, including those workers affiliated with third parties who require access to NCCU information systems at all locations.

These policies address the procedures for Change Management within NCCU. Only those changes that conform to the Change Management process described in this document are authorized for implementation. Within these standards are the rules of conduct relating to:

Change Entry

- Change Review
- Testing
- Change Approval
- Change Announcement
- Change Management Meeting
- Implementation
- Report and Control

These policies shall be governed and performed in accordance with the Office of the Chief Information Officer. NCCU reserves the right to change these policies without notification.

Overview

The purpose of change management is to ensure that standardized methods and procedures are used to alter the production environment to minimize the risk for negative impact of change. The specific objectives of applying a change management system are to:

- Implement changes on schedule
- Publish a calendar that specifies the "maintenance window" (when changes will be allowed) and network availability
- Eliminate or reduce the number of changes that are regressed due to issues without change planning and implementation
- Provide a back out plan for all changes
- Ensure change requests comply with NCCU change management standards
- Ensure implemented changes comply with NCCU baseline standards

The benefits to be gained from implementation of a change management policy are improved system reliability and availability due to more control and thorough planning for installation of changes, as a result of improved communication and awareness of changes.

Roles and Responsibilities

Change Driver

The Change Driver is the individual facilitating the change management process. This person assumes full responsibility for coordination of changes to the production environment. Generally this is an individual representing the department with the most to gain from the change.

The Change Driver also assumes responsibility for scheduling and communicating the change to all appropriate work groups. This includes:

- Ensuring overall compliance with the documented change process (reviewing, modifying, and reporting as needed)
- Serving as the starting and the focal point for the change management process and procedures
- Monitoring all change requests and plans and ensuring the flow of information
- Keeping all interested parties informed and communicating changes to the appropriate work groups
- Reviewing all change requests for accuracy and completeness
- Scheduling and recording all changes
- Facilitating and conducting meetings, as required
- Sending out a list of the changes to be discussed in the meeting each week.

Technical Lead

The person implementing the change.

Work Groups

Work Groups are responsible for implementing changes assigned to them. Whenever possible, Information Technology Services Department will implement changes solely. If cooperation from other departments is necessary, all groups will coordinate the integration in a cooperative fashion. Under no circumstances will any entity integrate new applications into a production environment without oversight from the Information Technology Services Department.

Change Management Team

The Change Management Team consists of the following people:

- Chief Information Officer (or designee),
- Director of Systems and Operations Support Services,
- Director of Network Services and Telecommunications,
- Director of Enterprise Information Systems,
- Director of Audit Compliance and Business Continuity,
- Change Coordinator
- Help Desk Representative(s), and
- Other Department Representative(s) as needed.

This team ensures Quality Assurance and validates the test plan and procedures for the production change. This team is responsible for the issue mitigation of the proposed production change.

The Director of Systems and Operations Support Services approves any exceptions to the formal change process for production systems.

Types of Changes

All changes in the Information Systems areas listed below are subject to the Change Management process:

- Applications, Systems and Third Party Software
- Documentation/Procedures/Policies
- Environment
- Hardware

Elements of Change Management

Change Entry

Change Entry is accomplished by utilizing the Change Control project in the Numara FootPrints software that is designed to handle any ITS changes.

Documenting all changes is critical to the success of our Change Management process. It provides a consistent method for categorizing and gathering the information necessary for successful change implementation. The change request is the vehicle whereby the required information is consistently made available to all parties involved in the change management process.

Change Review

The Technical Lead will review the changes pending implementation according to the following criteria:

- Create implementation plan
- Test Plans—has there been adequate testing prior to determining outcomes
- Recovery/Back out procedures—are these well documented, is the back out procedure clear
- Task dependencies—are they completed (cable moves, ID assignment, files relocated, etc.).

The Change Management Team will determine the following criteria:

- Proper category assignment—risk to internal and external customers and the production environment.
- Review implementation plan—does it accomplish the purpose of the change.
- Assess the impact of the change on other scheduled/pending changes

Testing

Testing must be performed in an appropriate testing area and not on the production environment. Changes will then be staged for user acceptance.

Change Approval

Authorized by the Change Management Team based upon the risk assessments, service levels and provided there is a business justification for the change.

Announcements

Change Management Meetings

This meeting will be regularly scheduled/as needed. The Change Driver will provide an agenda of newly submitted items and a change status schedule. The purpose of this meeting is to:

- Bring all required parties together to assess the feasibility of implementing the change and provide status.
- To review the status of all open changes and schedule for the current and upcoming weeks.
- Discuss high impact changes.
- Approve or disapprove each change as well as the Change Schedule.

Attendees of these weekly meeting are:

- Change Management Team members
- and Other Department Representative(s) as needed

If all members are not present at the Change Management Meeting prior to the scheduled implementation of a high or medium impact change, the Technical Coordinator pending subsequent review will postpone that change.

Monthly Report

The monthly report consists of charts showing the number of changes submitted during the month by category (i.e. high, medium and low risk), the number of problems caused by changes and the process measurements for the month.

Additional Meetings

Post mortems will be convened on an 'as needed' basis. Post mortems will be held for changes resulting in significant problems to determine what, if anything went wrong and how any such problems can be prevented in the future.

Weekly Change Status Report

The weekly change agenda, minutes and status report is generated and distributed each week for the Change Management Meeting. This report will cover changes made during the prior week, changes scheduled for the current week, changes scheduled for the next four weeks, and any open changes previously scheduled but not completed.

Campus Communications

If the change will affect our end-users communications will go out to the appropriate parties in by email and/or web posting. If communications are necessary the Change Driver/Technical Lead will send a notification draft as outlined in the Documentation section of this document.

Urgent Changes

There are 2 types of urgent changes, emergency and exceptional. These types of changes are the only changes that may deviate from the outlined change process and are described in detail below.

Emergency Changes

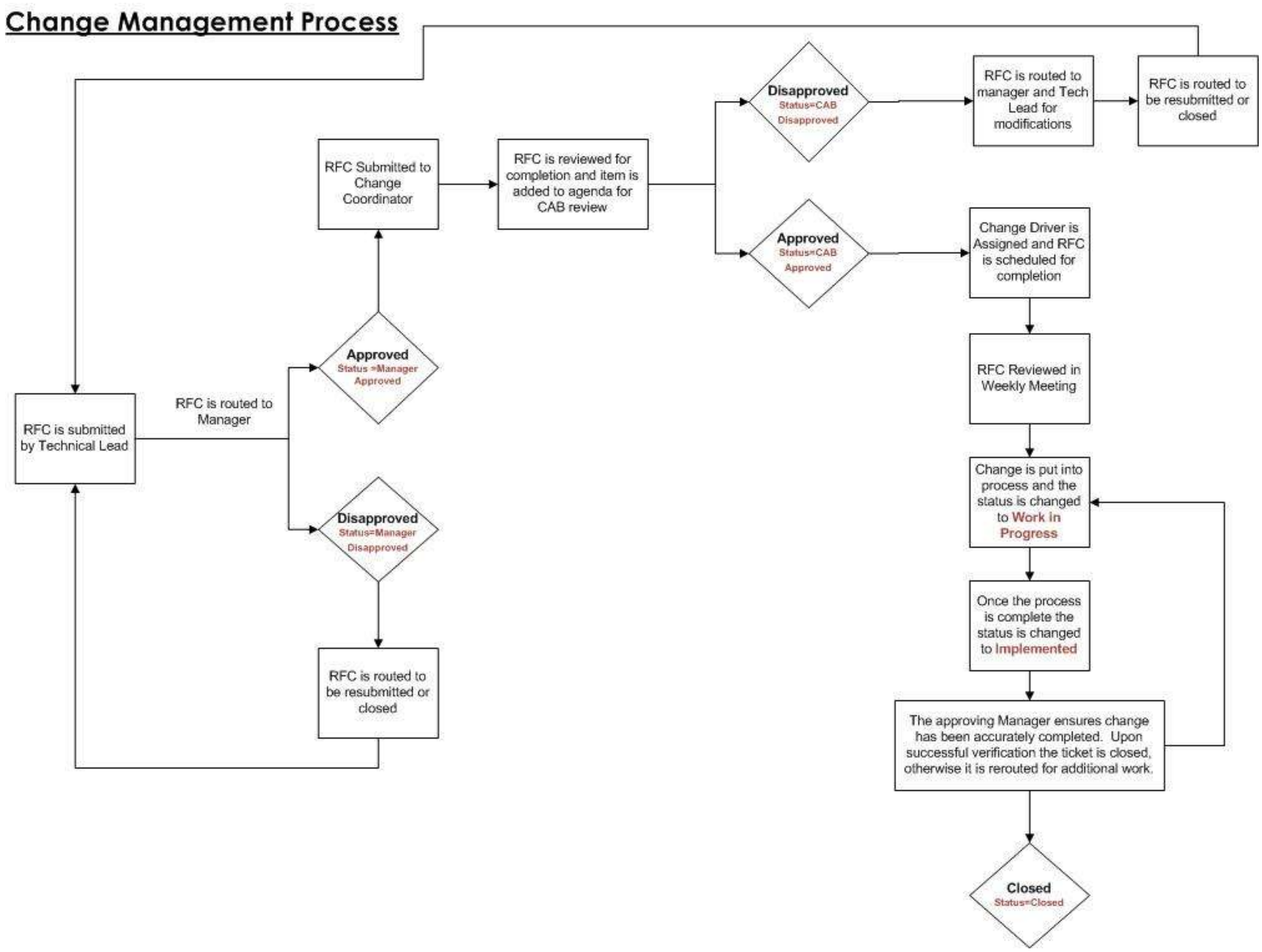
Emergency changes may be necessary to recover from a system failure, hardware problems or application problems. Emergency changes provide the flexibility required for the timely response to immediate problems. These problems include fixes to prevent recurring/imminent system failure, negative impact on business or production problems. These changes must be authorized by a member of the Senior Management Team.

Exceptional Changes

Extenuating circumstances will occur and changes will need to be made for certain business reasons. It is for this reason this category has been developed. These circumstances must be documented and included as part of the request package. In addition, mutual consent between the Technical Lead and the Change Management Team must occur to allow for the possible re-prioritization of the Technical Lead's workload. Signatures at management level will be required.

Changes of this type are rare and high risk in nature in that they will not be subjected to the same criteria as those outlined above. The timeframe for implementation may need to be shortened and allowances for the appropriate number of announcements might not occur.

Change Management Diagram

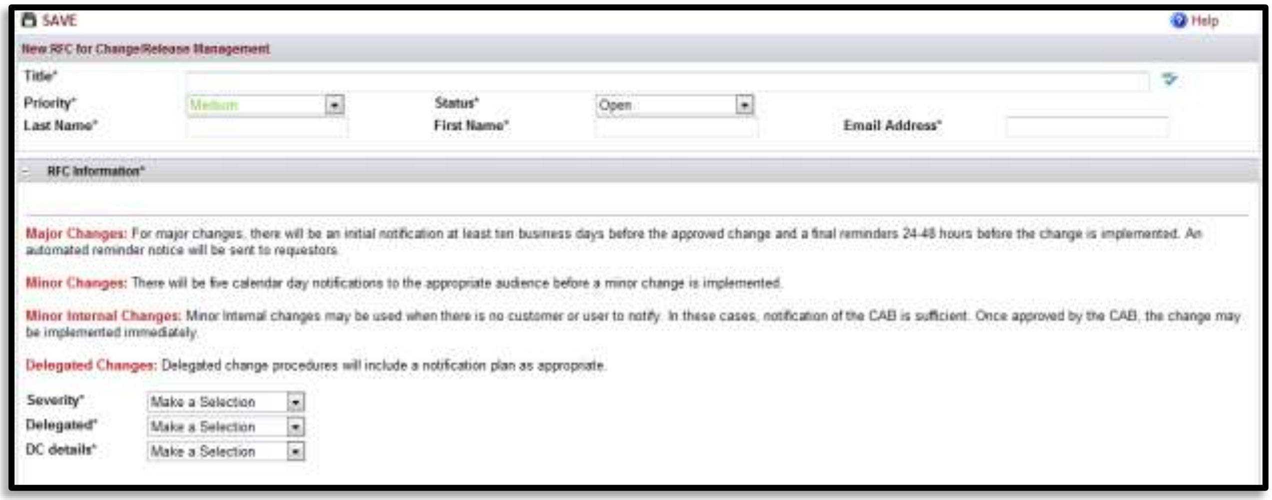


Documentation of Changes

RFC Information Tab

The fields on the RFC Information tab closely follow the example in Figure 1.

Figure 1


SAVE Help

New RFC for Change/Release Management

Title*

Priority* Medium Status* Open

Last Name* First Name* Email Address*

RFC Information*

Major Changes: For major changes, there will be an initial notification at least ten business days before the approved change and a final reminders 24-48 hours before the change is implemented. An automated reminder notice will be sent to requestors.

Minor Changes: There will be five calendar day notifications to the appropriate audience before a minor change is implemented.

Minor Internal Changes: Minor Internal changes may be used when there is no customer or user to notify. In these cases, notification of the CAB is sufficient. Once approved by the CAB, the change may be implemented immediately.

Delegated Changes: Delegated change procedures will include a notification plan as appropriate.

Severity* Make a Selection

Delegated* Make a Selection

DC details* Make a Selection

Severity indicates what type of change the RFC is requesting. The menu has the choices Urgent, Major, Minor, and Minor Internal.

Urgent Changes: Changes that must be made to the system immediately and require that the standard approval process be modified for immediate implementation. All urgent changes must be approved by a Director or CIO.

Major Changes: For major changes, there will be an initial notification at least ten business days before the approved change and final reminders 24-48 hours before the change is implemented. An automated reminder notice will be sent to requestors. All major changes must be approved by the CAB.

Minor Changes: There will be five calendar day notifications to the appropriate audience before a minor change is implemented. All major changes must be approved by the CAB.

Minor Internal Changes: Minor Internal changes may be used when there is no customer or user to notify. In these cases, notification of the CAB is sufficient. Once approved by the CAB, the change may be implemented immediately.

Delegated Changes follow the same manager approval process as Major/Minor/Minor Internal Changes, however these standard changes have already been submitted to the board and approved for implementation. When approved by a manager, the Status is automatically set to "RFC Approved" and may proceed without CAB review.

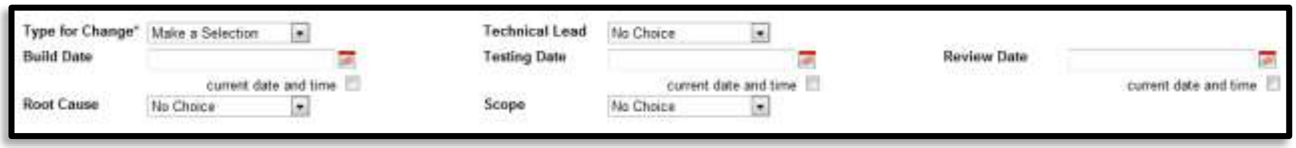
***Note:** All CAB Delegated Changes should be reported to a member of the Footprints administrative team so that they may be added to the RFC system.

DC Details allows the requestor to indicate which Delegated Change the RFC will be implementing.

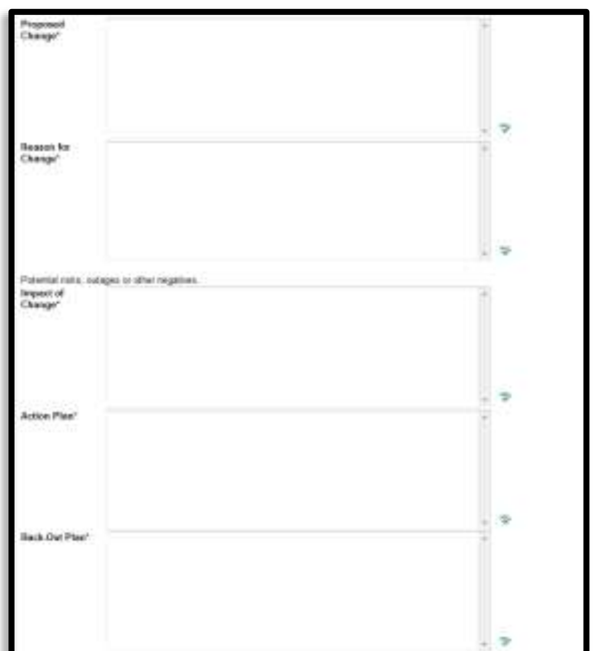
***Note:** If you do not see the desired Delegated Change listed in the drop-down menu, this may indicate that the change has not been approved by the CAB as a delegated change or has not been submitted to a member of the Footprints Administrative team for addition. Please see your manager for additional information.

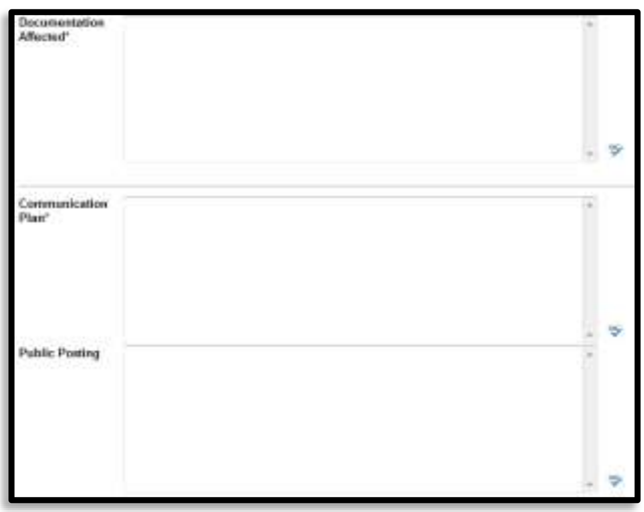
The follow sections of the RFC is designed to provide more specific information about the change request being submitted. The fields used to gather this information are as follows:

Figure 2



- **Type of Change**
- **Technical Lead**
    - (Individual who is responsible for implementing change)
- **Build Date**
- **Testing Date**
- **Review Date**
- **Scope**
    - (The number of estimated users that will be affected by this change.)





Please provide, in as much detail as possible, answers to these questions. These questions have been designed to ensure that each change request is thought and planned out throughly and thus will result in the smallest negative impact on our customers as possible.

- **Proposed Change**
- **Reason for Change**
- **Impact of Change**
    - This field should describe any potential risks or negative consequences associated with the Change.
- **Action Plan**
- **Back-Out Plan**
    - If your plan is unsuccessful, how do you plan to restore the affected system back to an acceptable working state.
- **Documentation Affected**
    - What documentation (Knowledge Base Solutions, Webpages, etc) will need to be reviewed/updated as a consequence of the change.
- **Communication Plan**
    - Does this change affect our end-users? If so, how do you plan to communicate information about the change to them.
    - If the proposed change will require public notification, please include a draft of the notification. The notification draft should be based on notification template.
    - **Notification Template:**
        - Sample Service Outage Notification

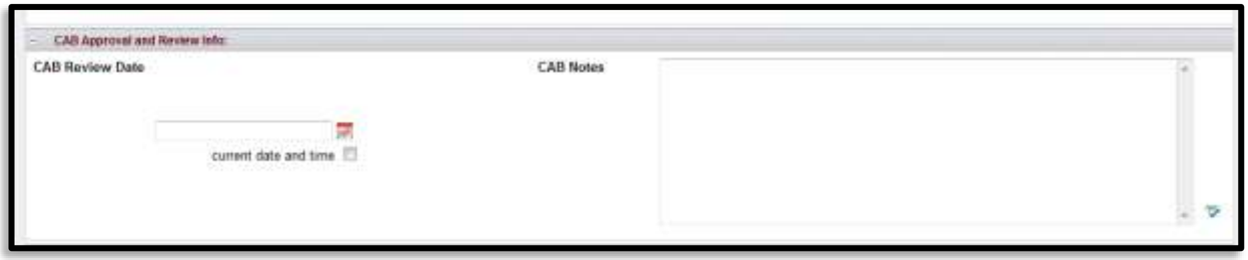
Short Desciption: SERVICE_NAME outage on month day(s), year.

Long Description: Beginning at TIME on DAY, DATE, there will be an outage of SERVICE_NAME. This outage will last approximately OUTAGE LENGTH, during which ITS staff will perform required system maintenance in order to REASON.

This outage has been scheduled during off-peak hours to minimize adverse impact. We regret any inconvenience this outage may cause.

If you have questions, please contact the Eagle Technical Assistant Center at 919.530.7676.

The Change Management Team (CMT) Approval and Review Info: This will be empty for a Draft, but later in the lifecycle of a RFC, it will contain fields for the CMT Review Date, CMT Notes, and additional indicators for Change Management Database (FootPrints) updates, Notification plan implementation and other Post-Implementation Review.



Attachments: Upload/download area. For example, when establishing a new Delegated Change Procedure, the proposed procedure document should be attached here.

Status Codes

The complete list of Status codes follows.

Open
Manager Disapproved
Manager Approved
CAB Disapproved
CAB Approved
Urgent Approved
Testing
Work in Progress
Implemented
Closed

Approval Workflow

Any ITS staff member can create a Request for Change. All RFCs must be reviewed by a manager or director.

Delegated Changes

1. Set the status to **Open**.
2. On the Assignees and Notification tab, assign a manager or appropriate alternative who will review this request.

The manager will get an e-mail notification that there is a RFC that needs to be reviewed.

If the manager sets the status to **Manager Disapproved**, the RFC is finished. It may be put back in **Open** status for editing.

If the manager sets the status to **Manager Approved**, it will be submitted to the Change Advisory Board for review.

If the Change Advisory Board approves the status will be changed to **CAB Approved** during the meeting. The Change may proceed immediately.

Major, Minor, Minor Internal Changes

1. Set the status to **Open**.
2. On the Assignees and Notification tab, assign a manager or appropriate alternative who will review this request.

The manager will get an e-mail notification that there is a RFC that needs to be reviewed.

If the manager sets the status to **Manager Disapproved**, the RFC is routed to be resubmitted (put back in **Open** status for editing) or closed.

If the manager sets the status to **Manager Approved**, it will be submitted to the Change Advisory Board for review. All RFCs with status **Manager Approved** will appear on the agenda for the next meeting of the CAB.

Urgent Changes

1. Set the status to **Open**.
2. The Director team will be automatically assigned and notified for all RFCs with Severity=Urgent.

If a member of the Director team sets the status to **Disapproved**, the RFC is finished. It may be put back in **Open** status for editing.

If a member of the Director team sets the status to **Urgent Approved**, and the Change may proceed immediately.

Updating a RFC

Once a Change has been approved, the requestor is responsible for updating the RFC, either directly or by assigning another agent.

Only agents that are assigned to the RFC can edit, including changes to the Status and the Assignees. However, anyone can "Take" or self-assign a RFC, and then can edit. All edits have the limitations described below.

Once a RFC is in Status=CAB Approved, most fields are read-only.

Since the public communication information often needs last minute revision, the Public Posting field can be updated in any Status by any agent assigned to the RFC.

Those with the Change Manager role are able to edit all fields regardless of status.

In the case of the large text fields (e.g., Reason, Action Plan, etc.), all edits include a time-date stamp.