

## ITS Change Management Process

### Change Approval Board (CAB)

The overall goal of Change Management within Information Technology Services (ITS) at UNC Chapel Hill is to align changes to the business and academic environment and thus minimize impact and reduce the risk of unintended service disruptions to the campus community.

The objective of the Change Management Process is to ensure that standard methods and procedures are used, such that change can be dealt with quickly, with the lowest possible impact on service quality.

### General Overview

There are four types of changes necessary for conducting normal operations for ITS. The ITS Change Management Process provides governance over three of those four processes, namely: Routine, Planned and Unplanned. See definitions:

1. **Operational changes:** these are the day to day changes performed to services that have no customer impact, no impact to services, and do not require outages outside of normal maintenance windows. These changes are preapproved and do not require change plans, and are excluded from this Change Management Process. Each ITS unit that uses this type of change will document their procedure and their operational categories, examples of Operational category changes, and perform an annual review this category of changes, especially when an operational change results in an unplanned change. Definitions of individual ITS unit Operational changes will be logged in Remedy and/or referenced in Remedy with url links to source repositories. For security reasons, access to those url's may be restricted until such time actual review is needed.
2. **Routine changes:** these are low impact, and commonly performed changes with an urgency classification of Normal. All Routine changes require a change plan to log the changes, and are required to have a change plan created a minimum of 2 days in advance. Routine changes do not require Change Approval Board (CAB) approval in advance. CAB will review routine changes weekly. *Note: Change plans for routine changes that are submitted less than 2 days or less in advance are classified as Unplanned Changes.*
3. **Planned Changes:** all planned changes will require change plans to be submitted with a **minimum of 14 days in advance, and will require CAB approval.** (See – ITS Planned Changes Process - in this document for additional guidance.)
4. **Unplanned Changes:** these plans shall be submitted as a response to an interruption or degradation in client or internal facing production services that were not planned in advance. *Change plans for routine changes that are submitted less than 2 days in advance are classified as Unplanned Changes.*

### Change Approval Board (CAB) Purpose:

The Change Approval Board approves requested changes and assists in the assessment and prioritization of changes. CAB membership (reviewed 6/20/2017): All ITS units will have at least one staff member participate in weekly CAB meetings and conference calls, and more participants if needed. This body will be comprised of ITS IT and ITS Business representatives that include: change managers from ITS units, user support managers, technical experts, possible third parties and customers (if required), who will ideally serve on a staggered one (1) year basis. The CAB members should selectively be chosen to ensure that the requested changes are thoroughly checked and assessed from both a technical and business perspective. CAB members should have a clear understanding of the customer business needs and the user community, as well as the technical development, support functions, and environments. The CAB will meet weekly to approve planned change submissions and review any unplanned changes.

Change requests shall contain the following in order to be approved:

- Service owner/Manager approval
- Complete and accurate information in the change request fields (in Remedy)
- Change Planning information- Change Plan must capture all the information required to implement change
  - Implementation – verification - and back-out plan details with hand offs.
  - Listing of those parties involved in the execution of the change event
  - Listing of those parties known to be impacted by the change event
  - Impact to customer experience, if any
  - Communications plan ahead of changes (if needed)
  - Designated incident communication person should a planned change result in an outage
- Some change requests may require additional information such as:
  - Updates to associated operational procedures, if any are affected
  - Official communications review and planning
  - User testing related to planned changes

### Change Approval Board Meetings:

The Change Approval Board will meet weekly in person and via conference call 3x/week to approve planned changes and planned High impact changes (Conference call). Attendees shall be prepared to address changes from their units, and relay CAB requests to their units. During the in-person meetings the following agenda will be followed:

- Weekly audit to ensure compliance with change processes of 10% of Routine Changes selected randomly and marked as reviewed in Remedy
- Review and approval of Planned Changes awaiting CAB approval
- Review of calendar for changes to ensure no collision with academic calendar events
- Review of any unplanned changes for impact to community, reasons for unplanned status, next steps including scheduling lessons learned if needed
- On the 1<sup>st</sup> Wednesday of the month, discuss future official communications needed for any future planned changes

- During Q2 of every fiscal year, conduct an annual review of Operational Changes definitions, CAB processes and Incident Communications checklist
- On 2<sup>nd</sup> Wednesday of every month – invite departmental representatives from the campus community

### Maintenance Windows

A maintenance window is a defined period of time during which planned outages and routine changes to production (see definition below) services and systems may occur. The purpose of defining standard maintenance windows is to allow clients of the service to prepare for possible disruption or changes.

University ITS services are available to customers 24 by 7, excluding planned outages, maintenance windows and unavoidable events or published schedules that define specific services availability. Maintenance windows are used only when needed. In addition to the standard ITS maintenance windows, site-specific and service-specific maintenance may be coordinated with customers at non-standard times. Maintenance work performed within these timeframes will be scheduled, documented, and/or communicated consistently with ITS change control processes and policies.

### ITS Production Services Maintenance Windows for Changes

	Enterprise Applications	Infrastructure & Operations	Communication Technologies	Research Computing	Information Security	Teaching & Learning
<b>Monday</b>	5:00am - 7:00am	5:00am - 7:00am			6:00am - 7:45am 5:00pm - 7:00pm	
<b>Tuesday</b>		3:00am - 7:00am	5:00am - 7:30am	7:00am - 8:00am	6:00am - 7:45am 5:00pm - 7:00pm	
<b>Wednesday</b>		3:00am - 5:00am 12:00am - 8:00am	5:00am - 7:30am		6:00am - 7:45am 5:00pm - 7:00pm	
<b>Thursday</b>	3:00pm - 7:00pm	3:00am - 5:00am 4:00pm - 8:00pm	5:00am - 7:30am		6:00am - 7:45am 5:00pm - 7:00pm	5:00am - 7:00am
<b>Friday</b>				5:00pm - 9:00pm		
<b>Saturday</b>						
<b>Sunday</b>				6:00am - 6:00pm		

## ITS Planned Changes Process

The ITS Planned Changes Process is a standard process for planned changes and maintenance for Information Technology Services and is intended to minimize the impact of service disruptions.

This process applies to all service changes and maintenances, and any change with a risk of an outage, to production services and network infrastructure, components, and capacity for which ITS is accountable.

All planned changes with customer impact will require change plans to be submitted with a **minimum of 14 days in advance**.

All planned changes with impact to **any one of the four** following criteria will require change plans to be submitted with a **minimum of 14 days in advance (planned change urgency = normal)**:

1. Large customer base impact.
2. Communications and/or community notifications involved to impacted users before, during or after the change
3. Planned change will include service outage or service degradation outside of a maintenance window.
4. Planned change will have Service Desk impact

### Exceptions:

Exceptions to the minimum 14 days advance notification are reflected in Planned Change URGENCY:

- Normal Urgency – 14 days or greater (*follows the ITS Planned Changes Process above*)
- High Urgency- 2-13 days – changes must be implemented within 2-13 days and could not be planned for >14 days due to unforeseen external (to ITS) circumstances, as stated in the change plan
- Critical Urgency < 1 day – emergency preventive maintenance, requires only AVC approval

### Change Blackout Windows

Change blackout windows will be needed periodically and, with CAB agreement, will be placed on the Change Calendar. The intent of Blackout Windows is to specify times during which change plans should not be scheduled or should receive additional review within ITS units before submitting. The blackout periods are to ensure that Routine and Planned changes are not scheduled during high visibility events, periods of high volume where there is the potential for large customer base impacts, or during major/critical services upgrades or new service rollouts. Operational, Routine and Planned Changes that will have no impact to the events during the identified Blackout Windows, can continue forward. Service owners who need exceptions to the blackout windows may request CAB approval for those exceptions at any time, utilizing the Planned Change Exception process.

### Unplanned Changes

Unplanned change plans should be submitted as a response to an interruption or degradation in client or internal facing production services that wasn't planned in advance.

Change plans for routine changes that are submitted less than **2** days in advance are classified as Unplanned Changes.

NOTE: All unplanned changes will be reviewed by CAB on a weekly basis and after action reports may be recommended. After action reports will be appended to unplanned change plans for future reference.

### ITS Enterprise Applications – QRB Process (Prior to CAB review)

The following is the process Enterprise Applications adheres to when making production changes to PeopleSoft. This process occurs outside of CAB and is not in scope for CAB oversight. It is listed here to inform CAB membership of the process and gating approvals required for changes prior to being submitted to CAB for production rollout (underlined below).

#### **QRB – Wednesdays, 4-5pm**

Weekly meeting to review all code and data changes ready for production – requires at least 2 EA leadership team members' approval. Requests, testing results, code reviews and customer approvals are documented in the EA SharePoint QRB list.

- Code changes (and any related SQL changes) require:
  - o Technical review approval
  - o Customer approval
  - o Planned deployment date / timing
  - o I&O review of complex migrations
  - o Security review / approval if required
  - o Change Plan completed, and number entered into QRB
- SQL (data) changes require:
  - o SQL code review approval
  - o Customer approval
  - o Planned deployment date / timing
  - o Change plan completed, and number entered into QRB
- Project Manager, or BA, or Technical Lead, or Manager presents

#### **eQRB (Emergency QRB) – as needed**

**This is required for immediate changes to production outside of the normal weekly process.**

- Same requirements as regular QRB
- Planned Change Plan – Critical is required with AVC approval

### ITS Outage Process

The ITS Outage Process is a standard process for planned and unplanned outages for Information Technology Services and is intended to minimize the impact of service disruptions.

This process applies to all outages, and any change with a risk of an outage, to production services and network infrastructure, components, and capacity for which ITS is accountable. Service changes may also be announced using this process.

The guideline for requesting approval of planned changes requiring a service outage is **14 days prior** to the change. Exceptions to the minimum 14 days advance notification are reflected in Planned Change URGENCY:

- Normal > 14 days - (*follows ITS Planned Changes Process, above*)

- High 2-13 days – changes must be implemented within 2-13 days and could not be planned for >14 days due to unforeseen external (to ITS) circumstances
- Critical < 1 day – emergency preventive maintenance

### Planned Outages

A planned outage is when a planned change causes an interruption in client or internal facing production services with any amount of downtime. A planned outage is when planning and scheduling of the outage occurs in advance.

### Unplanned Outages

An unplanned outage is an interruption or degradation in client or internal facing production services that wasn't planned in advance. Unplanned change plans should be submitted as a response to an interruption or degradation in client or internal facing production services that wasn't planned in advance. Closing a change plan once an unplanned outage has been resolved should include explanations for root cause of the outage if known. All Unplanned Changes will receive weekly CAB review.

### Change Planning Summary Table:

Urgency Level	CAB Approval for Planned (Y or N)	CAB Review or Approve Weekly
Routine	N	Audit
Normal	Y	Approve
High	Y	Approve
Critical*	Y*	Approve by AVC only*, weekly CAB review

### ITS Maintenance Calendar

All planned changes (excluding Operational and Routine Changes) shall listed on the [ITS Change Calendar](#).

### ITS Change Communications Process

Consistent communications regarding change management planning and events are important for the campus community and instill confidence in the ITS change management process. It is expected that each service owning unit manage communications regarding proposed changes as part of the change management planning process. Some change plans will require CIO office level planning. Engagement with the ITS Communications and Digital Services office (if their help is needed) should occur no later

than 14 days prior to planned changes, and as soon as possible for communications for critical urgency events. All communications shall address the following scope:

### Planned Changes: (Team Level Communications)

#### Before event:

- Date and time of change
- Scope statement
  - Plain English description of what is being done (what is happening)
  - Impact to people and services (what/who is impacted)
  - Why this is happening?
  - Who should be contacted for more information/questions/help

#### After Event:

- Change complete notification
- Update the Operations Center so ITS Alerts page is current
- All systems normal communication as appropriate

**Unplanned Changes:** (Please refer to ITS Incident Communications Checklist).

### Conference Bridge Etiquette

During certain types of outages it may become necessary to open a conference bridge per the Incident Communications checklist. There may be many participants on the bridge and the protocols below are intended as guidelines to maintain good flow of communications and minimize chaos during the call:

1. Incident communicator manages the conference bridge as the 'host'
2. Allow 5-10 minutes after conference bridge opens to take a roll call
3. Determine if the incident communicator will delegate host duties while working the problem – clearly announce that handoff if/when it occurs
4. Use the MUTE button when not talking (**not** the HOLD button) during the call to minimize distracting background noise
5. Speak clearly (identify yourself when speaking)
6. If you don't have anything to add, don't add anything
7. Be succinct and precise
8. Do not interrupt other speakers
9. Address the persons by name when asking questions
10. Notify participants when leaving or temporarily stepping away from the call
11. Close with clear next steps

Revision History

Version	Date	Updater Name	Description
V3	12/16/16	Sandra Germenis	Continuous Improvement – added Change Communication process; Incident Communication Checklist “placemat”
V4	06/20/2017	Sandra Germenis	Address state auditor findings for “Operational Changes” pp1 – General Overview; update CAB membership; update maintenance windows; update Change Planning Summary Table; Update Communications After Event summary to include Ops Center in resolution notification, placemat update for FY 2017-18
V5	9/25/2017	Sandra Germenis	Operational changes logging in Remedy; weekly audit or 10% of Routine changes; 1 <sup>st</sup> Wednesday Communications focus in CAB; annual review of Operational changes by ITS unit; Annual review of CAB process and Incident Communications checklist; 2 <sup>nd</sup> Wednesday available for outside ITS visitors to CAB; Maintenance windows changes; Change Blackout window added
V6, V7	10/5/2017	Sandra Germenis	Additional language changes in Change Blackout windows to allow for non-event changes to move forward. Conference bridge etiquette.



ITS Change Management – FY 2017-2018.  
Continuous improvement revisions – 10/04/2017\_v7.1

V7.1	2/27/2018	David Smith	Updated link to ITS Change Calendar on page 6
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Change Management Process				
Prepare: Communication and Planning			Execute and review	
Checklist			Checklist	
Steps	Prepare	Design	Execute	Review Results, Recommendations
1	√ Prepare problem statement	√ Document Problem statement and desired end state	√ Execute on the plan or back-out plan if necessary	√ Get feedback from stakeholders
2	√ State business reason to solve	√ Document appropriate scope of change readiness to address/include: Testing and testing stakeholders; training; Help Docs; FAQ's; Site champion engagement	√ Change POC - Communicate status to internal/external stakeholders; site champions	√ Verify service stability, SLA metrics, Service Desk call metrics
3	√ Determine services impacted	√ Identify obstacles to change - schedule conflicts calendar), academic calendar constraints; resource availability (internal or external); department readiness	√ State if goals were met	√ Individual and group recognition
4	√ Environmental factors - determine who/dept/school is impacted	√ <i>Create change plan minimum 7-14 days in advance</i>		√ After Action Review recommendation - y/n {After Action components: +/Δ, Action Items, Process Changes}
5	√ Conduct preliminary internal/external communications; select change POC	√ Approve/decline change plan (CAB)		√ Related tasks or plans in the future
6	√ Identify site champions (College, School or Unit {CSU} advocate and communication liaison)	√ Create a project deployment plan and address Testing and testing stakeholders; training; Help Docs; FAQ's; Site champion engagement, communication plans, change POC		Y CAB - continuous improvement check - Y/N
7	√ Determine urgency - internal/external	√ Official communication preparation and launch		
8	√ Risk assessment - not doing or post poning?			
9	Y Proceed to design phase y/n			
10				

Membership		Responsibilities	
Staggered 1 year memberships			
Current State	Future state	Prepare Phase	Execute and Review Phase
ITS - IT Manager or higher	ITS - IT Manager or higher; include campus site champions (as needed)	Meet weekly for Change plan review and approval/decline - deliverable based to ensure plan completeness, robust design	Participate in Lessons Learned activities
ITIL Foundations certified	ITIL Foundations certification required for ITS; recommended for campus site champions	Represent unit change activity plans to the CAB.	Participate in continuous improvement activities related to change management process

After Action Reviews		
Questions	Objectives	Lessons Learned
What was supposed to happen?	Identify Problematic Issues and Needs for improvement	Things that worked well and should be done again
What did happen?	Propose measures to counteract problematic elements	Short Term Improvements
What are some improvements?	Move Forward with Lessons Learned	Long Term Improvements
What are some sustainments?		Process/procedure changes
What can be done to improve the training next time?		Action items & due dates
Closing comments (summary).		