THE CONSTANT

CHANGE

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August 23, 2001

#202

Agenda

- Change Management Process
- Role & Responsibilities
- Request For Change (not demand)
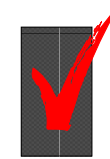- Change Procedures
- Management Reporting

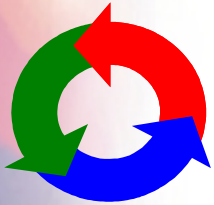# Change Management Process

Without Change

- Change conflict
- Untested change
- Change related incidents
- Recurring problems
- Unstable environment
- Business & IT conflict

Purpose

- Plan
- Implement
- Monitor
- Review
- Evaluate
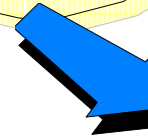
Why have a Change Management Process?

With Change

- Manageable change schedule
- Tested, verified change
- Higher change completion rate
- Less urgent/emergency change
- More stable yet flexible environment
- IT and Business alignment

The Approach

- Planning for Change
- Implementation
- Post-Implementation and Audit

Planning for CHANGE

Change Manager

- **Manager of Change Control**
- **Owns Change Management Process**
- **Filters initial RFCs for initial priority**
- **Decides change category (1,2,3)**
- **Authorizes and schedules cat 1**
- **Circulates cat 2 RFCs to CAB**
- **Chairs CAB meeting**

People

- **Change Manager**
- **CAB Members**
- **Change Owner**
- **IT Executive Committee**
- **Configuration Manager**
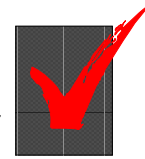
Assign Clear Roles and Responsibilities

CAB Members

- **Stake holders in the environment**
- **Change Manager**
- **Change Coordinator (if role is available)**
- **User Managers**
- **Business Managers**
- **User group representatives**
- **Application Development and Maint.**
- **IT Support staff**
- **Contractors/vendors as required**

IT Executive Committee

- **IT Director**
- **Business Directors**
- **Senior Level Managers**
- **Possibly Business Executives**
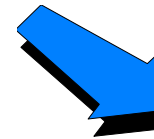
Request For Change (no demands)

RFC Section 2

- Change Assessment information
- Estimated time to implement
- IT Priority
- Backout possible?
- Risk assessment
- Impact on business
- Technical complexity of Change
- Computing dependency
- Resource impact to build change
- Deliverables that need to be changed, I.e., backup/recover documentation, etc.
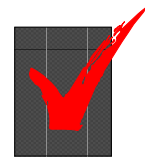
Request For Change(RFC) section 1

- Requester name, phone #, etc
- RFC # (assigned by Change Mgt)
- Change date requested
- Reason for RFC
- Tracking ID number
- User Impact
- Type of change
- Specific configuration item
- Description of change
- Dependencies
- Business Reason for Change

Just what IS a Change?

Change Approval

- Testing requirements and approval
- RFC approved?
- Required signatures
- Change review required and date

RFC Life Cycle

- Open
- Approved
- Postponed
- Build & Test
- Backed Out
- Rejected
- Review Pending
- Closed
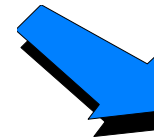
Implementation

Change Scope

- IT Staff
- Contractors
- Vendors
- End Users (through the Service Desk)
- Any employee
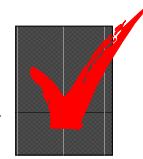
Awareness

- Communicate
- Address objections
- Expect Resistance to change

Why are we doing this? "We don't need no stinking Change Management"

Key groups for success

- Leaders in the organization
- Senior IT and Business Management
- Mid-level Management

Well documented & understood process

- Process flow chart
- RFC Form
- Change Review Form

```
                        ┌─────────────────────┐
                        │  Change Initiators   │◄───┐
                        └─────────────────────┘    │
                                  │                  │
                                  │         Reject   │
                    ┌─────────────────────┐         │        ┌─────────────────────┐
                    │  Change manager      │         │        │ Configuration manager│
                    ├─────────────────────┤ ─ ─ ─ ─ ┘        ├─────────────────────┤
                    │  Filters requests    │ ─ ─ ─ ─ ─ ─ ─ ─ │ Initial logging of RFC│
                    └─────────────────────┘                  │   & impact analysis  │
                                  │         Accept           └─────────────────────┘
                    ┌─────────────────────┐                  ┌─────────────────────┐
                    │  Change manager      │                  │ Configuration manager│
                    ├─────────────────────┤ ─·─·─·─·─·─·─·─·─ ├─────────────────────┤
                    │ Allocates initial priority│              │     Updates log      │
                    └─────────────────────┘                  └─────────────────────┘
```

Reject

Accept

Change manager

Filters requests

Configuration manager

Initial logging of RFC & impact analysis

Change manager

Allocates initial priority

Configuration manager

Updates log

Urgent

YES

To urgent procedures

NO

Change manager

Decides category

Category 1:

Minor impact

Category 2

Significant impact

Category 3:

Major impact

Change manager

Authorizes & schedules changes. Reports action to CAB

Change manager

CirculatesRFCs to CAB members

ITPS or ITEC

Passes approved changes to CAB for actioning

IT Infrastructure Library Process Model

```
        ┌──┐          ┌──┐
        └┐┌┘          └┐┌┘
         │             │
      ┌──┴─────────────┴──┐                          ┌─────────────────────┐
      │    CAB Members     │◄───┐      May be iterative│ Configuration Manager│
      ├────────────────────┤    │                     ├─────────────────────┤
      │  Estimate impact &  │    │                     │    Updates log,      │
      │ resources, confirm  │    │  - - - - - - - - - -│ issues forward schedule│
      │ agreement to change,│    │                     └─────────────────────┘
      │  confirm priority,  │    │
      │  schedule changes   │────┘
      └──────────┬─────────┘
   NO            │
      ┌──────────┴──────────┐                         ┌─────────────────────┐
      ◄       Authorized     ►  - - - - - - - - - - - │ Configuration Manager│
      └──────────┬──────────┘                         ├─────────────────────┤
                 │                                     │     Updates log      │
                 │                                     └─────────────────────┘
   YES           │
      ┌──────────┴─────────┐                          ┌─────────────────────┐
      │   Change Builder    │                         │ Configuration Manager│
      ├────────────────────┤                          ├─────────────────────┤
      │   Builds change,    │  - - - - - - - - - - - -│   Updates log with   │
      │  devises back-out   │                         │   progress reports   │
      │  & testing plans    │                         └─────────────────────┘
      └────────────────────┘
  Failure
      ┌────────────────────┐                          ┌─────────────────────┐
      │  Independent tester │                         │ Configuration Manager│
      ├────────────────────┤                          ├─────────────────────┤
      │    Tests change     │  - - - - - - - - - - - -│     Updates log      │
      └──────────┬─────────┘                          └─────────────────────┘
   Success       │
      ┌──────────┴─────────┐                          ┌─────────────────────┐
      │   Change manager    │                         │ Configuration Manager│
      ├────────────────────┤                          ├─────────────────────┤
      │    Co-ordinates     │  - - - - - - - - - - - -│    Informs users,    │
      │ implementation of   │                         │     updates log      │
      │      change         │                         └─────────────────────┘
      └──────────┬─────────┘
              ┌──┴──┐
              └─────┘
```

IT Infrastructure Library Process Model

```
                              ┌─────┐
                              │     │
                              └─┬───┘
                                │
                     NO    ┌─────────────┐    ┌──────────────────┐
              ┌────────────┤ Change Builder │   │ Configuration Manager │
         ◇────────┐        ├─────────────┤    ├──────────────────┤
      Working     │        │ Back-out plans │ ───── │ Updates log      │
         ◇────────┘        │ implemented   │        └──────────────────┘
              │             └─────────────┘
         YES  │
```

Change Builder	Configuration Manager
Back-out plans implemented	Updates log

Working — NO

YES

Elapsed time

Change manager
Change review

Success — NO

To Start

Configuration Manager
Updates log, associates any new RFC with old one

YES

Close

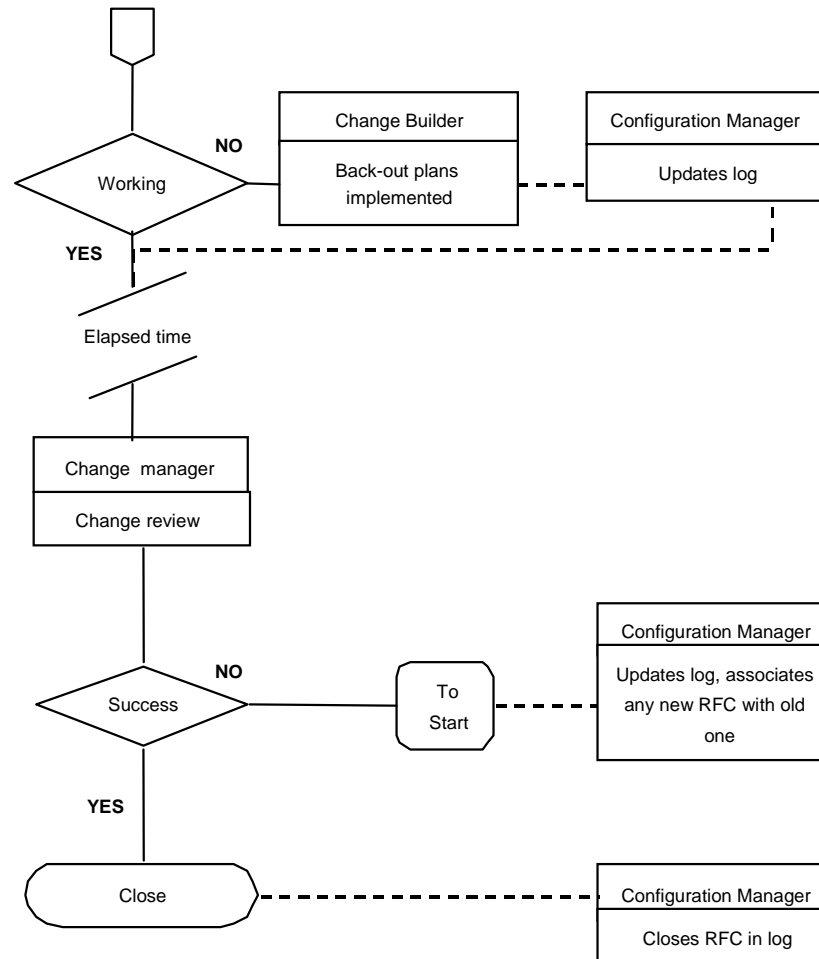| Configuration Manager |
|---|
| Closes RFC in log |

IT Infrastructure Library Process Model

Urgent Changes

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                    ┌──────────────────────┐                    ┌──┐
                    │  From normal procedure│                    │E │    ┌──────────────────────┐
                    └──────────┬───────────┘                    │l │    │Configuration Management│
                               │                                 │a │─ ─ ┤                      │
                    ┌──────────┴───────────┐                    │p │    │  Initial logging of RFC │
                    │    Change manager     │                    │s │    └──────────────────────┘
                    ├──────────────────────┤                    │e │
                    │  Calls urgent CAB or  │                    │d │
                    │   CAB/EC meeting      │                    │  │
                    └──────────┬───────────┘                    │T │
                    ┌──────────┴───────────┐                    │i │
                    │   CAB or CAB / EC     │                    │m │
                    ├──────────────────────┤                    │e │
                    │ Quickly assesses impact│                   │  │
                    │  resources & urgency  │                    │E │
                    └──────────┬───────────┘                    │l │
           NO                  ◇                                 │a │
  ┌──────────────────┐     ╱  Urgent  ╲                         │p │
  │To Normal Procedures├──◇             ◇                        │s │
  └──────────────────┘     ╲          ╱                         │e │
                               YES                               │d │    ┌──────────────────────┐
                    ┌──────────┴───────────┐                    │  │    │Configuration Management│
                    │    Change builder     │                    │T │─ ─ ┤                      │
                    ├──────────────────────┤                    │i │    │Updates log progresses report│
                    │  Urgently prepares    │◄──┐                │m │    └──────────────────────┘
                    │       change          │   │                │e │
                    └──────────┬───────────┘   │                │  │
       NO                      ◇                │                │E │
   ┌───────────────╱  Time for testing ╲       │                │l │
   │               ╲                    ╱       │                │a │
   │                    YES                     │                │p │
   │         ┌──────────┴───────────┐           │                │s │
   │         │  Independent testing  │           │                │e │
   │         ├──────────────────────┤           │                │d │
   │         │    Urgent testing     │           │                │  │
   │         └──────────┬───────────┘           │                │T │
   │                    ◇           NO           │                │i │
   │                 ╱Success╲──────────────────┘                │m │
   │                 ╲       ╱                                    │e │
   │                  YES                                         │  │
   │         ┌──────────┴───────────┐                            │E │
   │         │    Change manager     │                            │l │    ┌──────────────────────┐
   │         ├──────────────────────┤                            │a │    │Configuration Management│
   └────────►│ Co-ordinates change   │─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ │p │─ ─ ┤                      │
             │   implementation      │                            │s │    │Updates log, informs users│
             └──────────┬───────────┘                            │e │    └──────────────────────┘
                        ▽                                        │d │
                                                                 │T │
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                                                                 │m │
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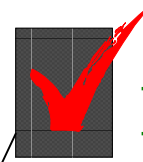
IT Infrastructure Library Process Model

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                                        ┌──────┐
                                        └──┬───┘
                                           │
                                       ╱───┴───╲          NO       ┌─────────────────────────┐
                                      ╱         ╲──────────────────│     Change Manager       │
                                     ╱  Working   ╲                ├─────────────────────────┤
                                      ╲         ╱                  │ Co-ordinates back-out plan│
                                       ╲───┬───╱                   └─────────────────────────┘
                                           │
                                        YES │
                            ┌─────────────────────────┐        ┌─────────────────────────┐
                            │     Change Manager       │        │   Configuration Manager  │
                            ├─────────────────────────┤        ├─────────────────────────┤
                            │ Ensures records are      │────────│ Update log with all       │
                            │ brought up-to-date       │        │ details to date           │
                            └─────────────────────────┘        │ Sets documentation in     │
                                           │                    │ order                     │
                                    Elapsed time                └─────────────────────────┘
                                           │
                            ┌─────────────────────────┐
                            │     Change Manager       │
                            ├─────────────────────────┤
                            │ Reviews change           │
                            └─────────────────────────┘
```

Post Implementation

Change Record Review

- Number of RFCs
- Ratio of rejected RFCs
- Number of implemented changes
- Number of backed-out changes
- Ratio backed-out to completed changes
- Changes on backlog

Review

- Elapsed timeframe
- Change complete?
- Proper allocation of resources?
- Change successful?
- What next?

**Change Review
&
Management Reporting**

Management Reporting

- Number of changes in the period
- Breakdown of reasons for change
- Number of successful changes
- Number of backed-out changes and why?
- Number of change-related outages
- Number of RFCs and changes reviewed

Pay Attention to

- Number of Urgent/emergency changes
- Number of failed changes
- Incorrect priority or classification
- Process being circumvented
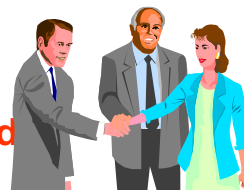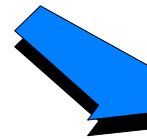
Benefits, Costs, and Possible Problems
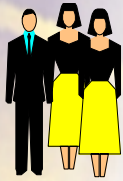
Cost

- **Staff**
- **Tools**
- **Management time**
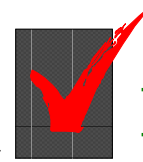
Benefits

- **Less adverse impact to quality**
- **Improved cost assessment**
- **Less backed-out changes**
- **Ability to absorb high level of change throughout the organization**

Improvement does not come without cost

Possible Problems

- **Process mindset required**
- **Cultural difficulties**
- **Process circumvention**
- **Process dies without improvement and ownership**
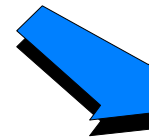
Tools

- **Process before TOOL**
- **"A Fool with a tool is still a Fool"**
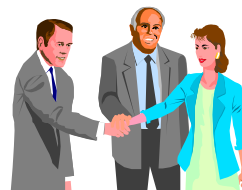
Process Improvement

Effectiveness

- Reduction of problems traced to change
- Reduction of urgent/emergency change
- Less adverse impact to IT Service
- Reduction in changes backed-out
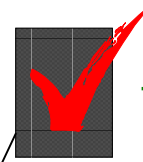
Efficiency

- Correlation between planned & actual implementation of changes
- Limited high priority RFCs in backlog
- Backlog actually reducing

Audit:
- RFCs
- Change records
- CAB minutes
- Change review
- Back-out plans
- Change schedules

Efficiency Effectiveness Flexibility

Flexibility

- Reduction in unplanned changes
- Process followed, not circumvented
- Proactive maintenance verses reactive
- Less unjustifiably rejected RFCs

Change Process Improvement

- Listen to change requestors
- Consider more frequent/less time consuming CAB meetings
- Remember TEAM (Timely, Efficient, Active participation, Manageable)
- Utilize tools to improve not replace process
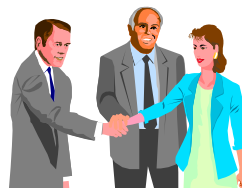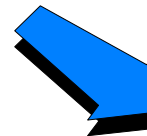
Thank you for your participation