MIS 5203
Systems & Infrastructure Lifecycle Management 1

Week 13
Nov 25, 2012
Study Objectives

• Change Management
• Release Management
• Post implementation Reviews
Change Management

• What is applicable to Change Management?

A. Change Made to Production Environment
B. Change must be signed off by Business, Development, and Operation Teams
C. Operations is responsible for making change to the Production environment
D. Change Management requires artifacts to indicate the functionality to be implemented is tested in lower environment and UAT is completed
Change Management Document

- Often a formal document
- Generally created by Development and Operation Teams
- Generally approved by Stakeholders
  - Business Partners
  - Operations
  - Development
- Scope of Change must be clearly defined
  - Modules changes and to be deployed. All deployable must be outlined including executable files, dlls, JAR files
  - Configuration changes to be made, should be outlined
  - Hardware and Network changes, if any, should be defined
  - Checklist of the changes is completed
Change Management Document Contd.

- Expected Benefit of the Change is outlined
- Any changes to the Business and Systems SLA changes should be included
  - Include any performance degradation
  - Service disruption
  - Downtime
  - Work-around and fall back during Change implementation
Change Management Document Contd.

• Impact of Change
  – Criticality—Penetration grid
  – High Critical and High Penetration changes are high severity changes and should be carefully planned
Change Management Document Contd.

• Implementation Document
  – Implementation Document, which typically has detailed (minute-by-minute) instruction of the various steps of the changes, along with the person responsible for making the change should be complete before the change
  – Implementation should be done by Operations team

• Roll-back plan
  – should be tested in the lower environment prior to change to care for any unexpected urgency
• Certification of the Change
  – Change to the system should be tested. This testing is sometimes called “smoke” testing
  – Change certification testing is typically less elaborate than progression or regression testing; however, the testing should ensure
    • The existing key functionality continue to work
    • Major progression cases work in production environment
    • Performance of the system is not adversely impacted after the change

• Communication of the change
  – to the stakeholders during the change
  – to the stakeholders after the change
Change Management Document Contd.


• Change, Configuration, and Release Management Example for SQL Server
  
Change Management Controls

Controls should be in place to:

• Documenting change request form
• Authorizing change
• Assessing impact
• Ensuring access to the program in production is limited to authorized team (Operation Team) only
Release Management

• Which of the following are applicable to Release Management?
  • Process of releasing software to the users
  • Process of Change Management and Deployment of the change
  • Back-out plan
  • Stakeholders buy-ins
Types of Software Release

• Major Release
  – Significant changes to the functionality
  – Number of Releases depends on the SDLC methodologies used by the organization, but typically, could be smaller number of major releases (2-3 per year for example)

• Minor Release
  – Smaller changes to the functionality
  – There could be couple of minor releases per major releases

• Emergency, Patch, or Unplanned Release
  – To address a software defect found in production
  – On as needed basis, and the goal is to minimize emergency releases
Release Planning

• Release scope determination
• Come up with the timeline of the release
• Roll-out strategy
  – For example, alpha, beta, and phased deployment to minimize risk
• Resources (User, Operations, Business, and IT) needs identification
• Roles and Responsibility Definitions
• Back-out plan
• Release performance metrics and KPIs
Configuration Management

• What’s the role of Configuration Management?

• Managing access to the program files such as source code to the authorized individuals (developers for code, for example)
• Prevent corrupting the program by accidently overwriting by one user, when other user is also working on the same module
• Provide ability to “check out” and “check in”
• Provide ability to keep separate versions of the program to track the changes
Configuration Management

• Tools Used for Configuration Management
  – TFS (Team Foundation Server) in Microsoft Development Environment
  – CVS for Java Environment
  – Continuus

• Artifacts typically managed by a Configuration Management Tool
  – Code
  – Design
  – Configuration files
  – Test Scripts
  – Release Management Documentation
  – Reports
  – DDLs
Configuration Management Contd.

• Checking-out /Checking-in
  – An artifacts can be checked in in the Configuration Management Tool (version n)
  – Subsequent version must be checked out before changes can be made. Once the changes have been made and tested, the artifact can be checked back in as the next version (version n+1)

• Configuration Management Policy
  – Should be developed, and the process should be understood be the developers, designers, tester, etc.
Post Implementation Review

- What is applicable to Post Implementation Reviews?
  
  A. Conduct Lesson Learned Meetings
  
  B. Assess the actual benefit of the project against the Business Case
  
  C. Closing the project
  
  D. Assign Open Action Items to the relevant teams
  
  E. Fix the outstanding issues and conduct post-implementation reviews again and again until the project benefits are realized
Upcoming Assignments/Tests

1. Group Case Study -3 (Testing): Mon 11/25 before the class
2. Final (multiple choice questions 40-50 modeled after CISA exam. Covers entire course.): Mon 12/9

Questions?
Upcoming Assignments/Tests

1. Final (multiple choice questions 40-50): Thu 6/28
Summary of Today’s Class

• Change Management
• Release Management
• Post Implementation Review
• Focus of the Next Class and Reading
• Questions