LinkedHU_CENG
Configuration and Change Management Report

1. Introduction

Configuration management is a systems engineering process for establishing and maintaining consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout its life.

Change management is a collective term for all approaches to prepare, support, and help individuals, teams, and organizations in making organizational change. It includes methods that redirect or redefine the use of resources, business processes, budget allocations, or other modes of operation that significantly change a company or organization.

2. Purpose

It reduces the risk of downtime and security breaches through visibility and tracking of changes in our systems.
By having detailed knowledge of all aspects of our configuration, technology reduces cost by avoiding wasteful duplication of your assets.
It provides an improved experience for our customers and employees by quickly identifying and correcting misconfigurations that could adversely affect performance.
It helps us maintain tight control of processes by defining and enforcing formal policies and procedures governing asset identification, condition monitoring and auditing.
Greater agility and faster problem resolution enable us to deliver higher quality service and reduce software engineering costs.
It helps us perform efficient change management by knowing our core configuration and having visibility into design changes that prevent problems.
Faster restoration of service. In the event of an outage, we can recover quickly as our configuration is documented and automated.
It provides better version management and clear status accounting.

3. Configuration and Change Management Specifications

The software configuration management process is a series of steps designed to track and manage all the defects, resources, codes, documents, hardware and budgets throughout a project. There are five activities within a configuration management process which should be applied during the software process life cycle. Planning and Identification, Version Control and Baseline, Change Control, Configuration Status Accounting, Audits and Reviews are these activities. When planning a configuration management effort you should consider the basics: what has to be done, how should it be done, who should do it, when should it be done, and what resources are required. Planning should include the organizational and functional structure that will define the methods and procedures to manage functional and physical characteristics, interfaces, and documents of the system component. It should also include statements of responsibility and authority, methods of control, methods of audit or verification, milestones, and schedules.The version control and baseline step ensures the continuous integrity of the product by identifying an accepted version of the software.There are three types of change documents used to control baselines associated with government configuration management: Engineering Change Proposal, Request for Deviation, and Request for Waivers. Engineering Change Proposals (ECP) identify need for a permanent configuration change.Upon approval of an ECP a new configuration is established.Requests for Deviation or Waiver propose a temporary departure from the baseline. They allow for acceptance of non-conforming material. After acceptance of a deviation or waiver the documented configuration remains unchanged. Change control is the method used to ensure that any changes that are made are consistent with the rest of the project. Having these controls in place helps with quality assurance, and the approval and release of new baseline(s). Change control is essential to the successful completion of the project. Configuration Status Accounting is the recording and reporting of the information that is needed to manage the configuration effectively, including: A listing of the approved configuration documentation, status of proposed

changes, waivers and deviations to the configuration identification, implementation status of approved changes,and configuration of all units, including those in the operational inventory. Audits and Reviews is a technical review of every stage in the software development life cycle. Audits and reviews look at the process, configurations, workflow, change requests, and everything that has gone into developing each baseline throughout the project's development. Audits are key milestones in the development of the system and do not stand alone.

Key Considerations

Configuration management (CM) is a systems engineering process for establishing and maintaining consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout its life. CVS is a version control system, an important component of Source Configuration Management (SCM). Concurrent Versions System (CVS) is a program that lets a code developer save and retrieve different development versions of source code. It also lets a team of developers share control of different versions of files in a common repository of files. We are using Git as a CVS because it is free and open source, fast, doing data is very rare, allows secure platform, easy to branch.