

# Information Technology Infrastructure Maintenance Window

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**Abstract:** IT change management plays a major role on IT services availability, security and reliability which positively reflected on the customer satisfaction. Different activities are being implemented in the IT infrastructure related to systems maintenance, upgrade, patch...etc. which might result in impacting business users in a way or another and sometime cause wide impact/interruption. The ultimate objective of change management is to minimize service downtime and customer complains due to planned changes. This article will specifically focus on IT change management process with regards to IT maintenance window activities.

**Keywords:** IT maintenance window, IT block time, service availability, IT Change Management.

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## I. INTRODUCTION

The Number of changes that are being implemented in the IT infrastructure is getting increased due to different factors such as but not limited to; security compliance, systems compatibilities and business requirements fulfilment. Changes that will result in interrupting IT services and business users require more attention and controls during the change assessment. Potential cross impact or conflict may occur due to service affecting changes implemented during the same period which negatively impact the operation and customer satisfaction. Therefore, utilizing a predefined maintenance window for such activities will reflect the ultimate goal of IT change management which is to eliminate the disruption of business due to changes and maximize IT services availability towards customer satisfaction.

## II. IT CHANGE MANAGEMENT PROCESS

IT change management responsible for governing the lifecycle of all changes in the IT infrastructure covering production, facility, quality and testing environments for computing, communication, databases and applications.

Change request is required for any alteration to the state or configuration of any production software or hardware under IT management and support. This includes adding, modifying, repairing or removing functionality.

The ultimate goal of IT Change management is to reduce or eliminate disruptions and business loss due to changes. In addition, communicate all changes to affected parties including customers (end users). Furthermore, optimize the overall business risk, identify changes potentially impacting service delivery, and ensure that standardized methods and procedures are used for efficient and prompt handling of all changes.

### A. Change Requests Types:

- a. **No-impact:** A non-service affecting change that proves to be of no impact on the service delivery to the users, such as weekly routine jobs, facility and new installations
- b. **Service affecting:** A service affecting change that impacts service delivery to the users, such as shared hardware, systems software, application software, or procedural changes, which could impact the infrastructure and possibly impacts production services
- c. **Emergency:** A change that does not present notification to the formal process in advance of implementation. An emergency change is the result of a system failure, a potential system failure or the discovery of security vulnerability. Assessment and approval for such change will take place post implementation
- d. **Standard:** A pre-authorized change that is low risk, relatively common and follows a procedure or work instruction

### **III. IT BLOCK TIME**

Block Time is a predefined maintenance window agreed upon for IT systems, where services are expected to be unavailable during the specified period. An approved change request is required to utilize the predefined maintenance window according to IT change management process and procedure. It is worth to mention that best block times document requires the following:

- Deep dive analysis for changes covering change type, implementation frequency and required duration
- Comprehensive analysis for IT systems covering system tiering, business criticality, hosted services/systems, number and type of users
- Involvement and engagement of Subject Matter Experts companywide covering IT, critical business users, IT service desk
- Systems freezing period (predefined period where no changes should be implemented on selected systems)

The driver behind defining maintenance windows is to have a clear schedule for systems maintenance activities from operational perspectives. In addition, provide business users with predictable periods of systems interruption to take the proper action as required.

Block time should be identified based on the least utilization period of the systems along with service availability. Block time plays crucial role for critical systems with frequent changes. More than one maintenance window is acceptable for multiple systems to ensure service availability and eliminate any cross impact/conflict between critical systems changes.

Majority of service affecting changes are scheduled during dedicated maintenance window as they are considered to be critical. Such changes should be discussed during the weekly change advisory board meeting with the attendance of all mandatory attendees across IT such as change management, problem management, system proponent, and service desk to assess the changes from all perspectives covering; business, technical, risk, impact and identify any conflict between changes planned to be implemented during the same block time. In addition, ensure all required testing and coordination were implemented and in place. Furthermore, notify all critical business users about the systems downtime either through email, SMS or post a maintenance downtime message on the system.

### **IV. CONCLUSION**

As part of IT change management process, IT maintenance window is required for critical system changes in order to have smooth and successful implementation with minimal interruption to IT services.

### **REFERENCES**

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