



# **COMPUTER NETWORKING**

## **PROJECT PROPOSAL**

### **WORKSPACE NETWORK MANAGER**

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## **Introduction**

The Workspace Management System is a computer networking project aimed at creating a system that will help organizations manage their workspace more effectively. This project will enable organizations to optimize their workspace usage, track usage patterns, and improve overall productivity.

## **Objective**

The primary objective of this project is to create a Workspace Management System that will provide an efficient way to manage workspace reservations and utilization. This system will allow organizations to manage data traffic efficiently to optimize allocation of resources.

## **Scope**

The Workspace Management System project will have a network topology that will allow admin to track and trace data traffic among workspace resources, track resource usage patterns. Additionally, the system will have an administrative panel that will allow administrators to manage user access, view reports, and monitor workspace usage.

## **Features**

The following features will be incorporated into the Workspace Management System:

1. User authentication and authorization: The system will require user authentication to ensure secure access to workspace resources. Users will have different levels of access depending on their roles within the organization.
2. Resource management: The system will track resource usage patterns and provide insights into how workspaces are being utilized. This will help organizations identify areas for improvement and optimize their workspace usage.
3. Reporting and analytics: The system will provide reports on workspace usage, utilization, and other metrics, which can be used to make informed decisions about workspace management.

## **Methodology**

This project will follow the following methodology.

1. Analyze the network requirements of a Business Workspace.
2. Design a network topology using Cisco Packet Tracer Software.

3. Implement the network infrastructure in the Cisco Packet Tracer Software.
4. Test and troubleshoot the network infrastructure.
5. Document the network design and implementation process.

## **Tools**

The following tools will be used for completion of this project.

1. Cisco Packet Tracer software designing and implementing the network infrastructure.
2. Microsoft Word or Latex for Documentation.

## **Expected Outcomes**

1. A well-structured network infrastructure that will support resource management and help in internet traffic monitoring.
2. Increased efficiency in carrying out day-to-day activities.
3. Enhanced security of the network infrastructure.
4. Improved network performance.
5. Better network management and monitoring.

## **Hardware Requirements**

The following hardware will be required to complete this project but as this is semester project, so we are doing this virtually on Cisco Packet Tracer but for real these are given below:

1. Computer or Laptops with sufficient processing power to run Cisco Packet Tracer Software.
2. Network devices, such as routers, switches and firewalls.
3. Ethernet cables for connecting network devices.

## **Benefits**

1. Increased efficiency in carrying out management and tracing activities.
2. Improve Network Security.
3. Enhanced network performance.
4. Better network management and monitoring.
5. Reduced downtime due to network issues.
6. Improved collaboration and communication between Employees and Admin.

## **Conclusion**

In conclusion, the implementation of a business / professional workspace network using Cisco Packet Tracer software will provide Workspaces with a well-structured network infrastructure that will support their day-to-day activities. This project will not only enhance the efficiency of our Network activities but also improve network security and performance, making it easier to manage and monitor the network.