IT Infrastructure Upgrade Project

Computer Networking � Software Installation & Deployment

1 Project Overview

This project aims to overhaul the client's digital environment by establishing a robust Computer Network and streamlining Software Deployment. The goal is to create a secure, high-speed infrastructure that supports automated software distribution to all endpoints.

Primary Objective

Upgrade network bandwidth to 10Gbps and implement zero-touch software provisioning.

Expected Outcome

Reduce software installation time by 80% and eliminate network downtime during peak hours.

2 Computer Networking Infrastructure

A reliable network is the backbone of modern IT operations. We propose a complete overhaul of the physical and logical network layers.
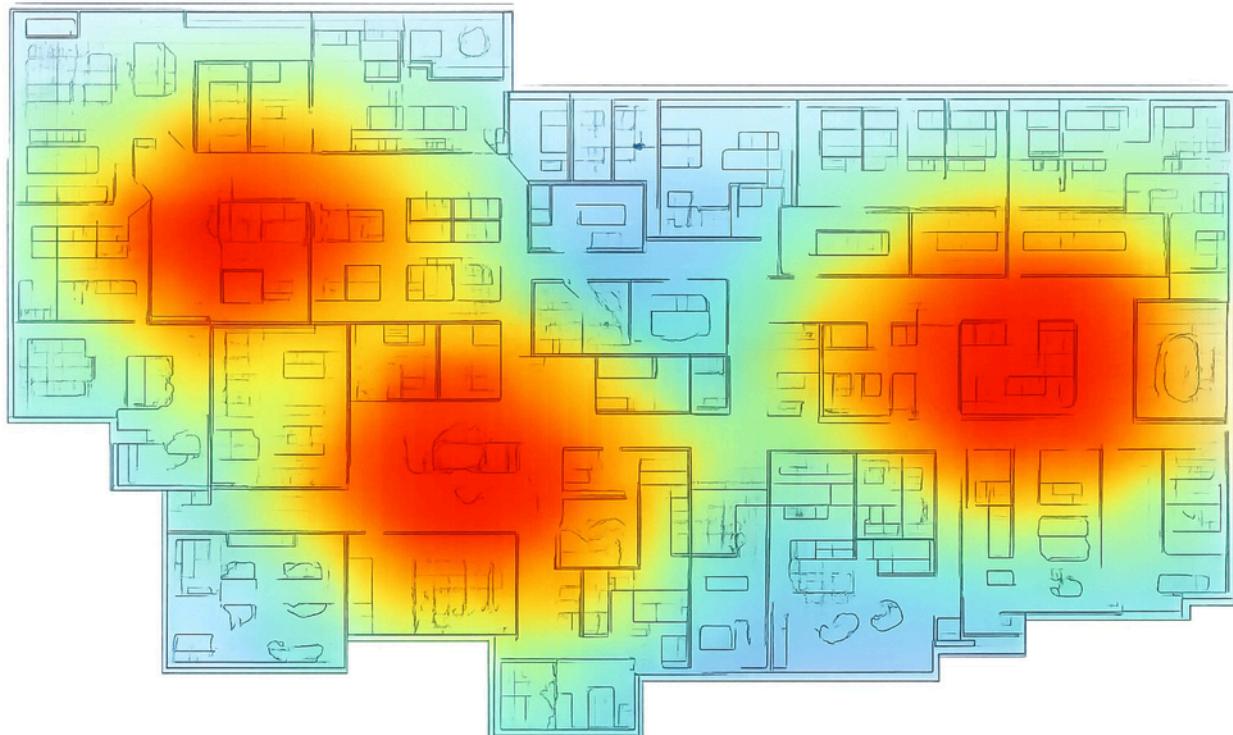

Proposed Structured Cabling & Rack Setup

Physical Layer (Cabling)

- ? Installation of Cat6a Cabling for 10Gbps speeds.
- ? Cable management and rack organization.
- ? Fiber optic uplinks between floors.
- ? Installation of PoE+ switches for Wi-Fi APs.

Logical Layer (Configuration)

- ? VLAN segmentation for security (Data, Voice, Guest).
- ? Subnetting and IP Address Management (IPAM).
- ? Firewall configuration & VPN setup.
- ? QoS prioritization for VoIP and Video.

High-Density Wi-Fi Coverage Heatmap

3 Software Installation & Deployment

Utilizing the new network, we will deploy a centralized management system to handle Operating System (OS) imaging and application distribution.

Automated Deployment Console

Deployment Strategy

?OS Imaging: Standardized Windows/Linux images via PXE Boot.

?MDM Integration: Mobile Device Management for laptops and tablets.

?Patch Management: Automated security updates every Tuesday.

? App Store: Internalportal for self-service software installation.