Critical Thinking Module 2:

A Project Management Plan for Refreshing Network and Laptop Equipment

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To manage the refreshing of the organization's IT equipment, a Project Management Plan (PMP) was developed. The main goals of PMP are to manage the replacement of network equipment across more than 48 facilities and laptops for 150 employees while mitigating the risk of "unhappy stakeholders." The primary constraints of the PMP are the lack of on-site IT personnel (over 48 local sites, only 150 employees). Therefore, the plan is based on a hardware selection strategy that focuses on the manageability and durability of the IT equipment rather than on raw performance or the initial price of the devices.

The primary goal of acquiring new IT equipment is to ensure that throughout the organization, the IT ecosystem maintains performance, is secure, and remains up to date (Ritcher, 2024). On the other hand, PMP's primary goal is to manage the refreshing of the organization's IT equipment while minimizing the risk of unhappy stakeholders by identifying the stakeholders' concerns, communicating regularly and effectively, involving them in the decision-making process, addressing their concerns, and building a positive relationship (Consultation Manager, 2023). The adopted hardware selection strategy incorporates both the refreshing of IT equipment's primary goal and the PMP's primary goals by prioritizing device cloud management and hardware resilience to mitigate the risks associated with a widely distributed IT network lacking in-house local support. Additionally, while initial procurement costs for higher premium enterprise equipment (e.g., cloud-manageable IT equipment), the Total Cost of Ownership (TCO) is lower due to the remote manageability capability of such equipment (Williams & Lee, 2015). Additionally, this approach positively impacts the ROI (Return on

Investment). Studies have shown a potential 90% reduction in time spent on firmware upgrades and a 40% reduction in network downtime due to cloud monitoring (Desai, 2025).

An example of network hardware selection is choosing the Cisco Meraki MX devices over the HPE Aruba devices, as the Cisco Meraki MX devices can be entirely managed via the Meraki cloud through a subscription based service, and the HPE Aruba devices, although they have cloud management capability, still require some on-site management (Cisco Meraki, 2025; Kyle, 2022; Stratus, 2024). An example of employees' laptop selection is choosing the Lenovo ThinkPad over Dell laptops. Although the Dell laptops provide automated management tools, the ThinkPad adheres to MIL-STD-810H standards, which test against shock, vibration, and environmental extremes (Barnaby, 2025; Interplay n.d.).

The developed PMP integrates the prior formulated hardware selection strategy with the Project Management Body of Knowledge (PMBOK) lifecycle. The PMBOK lifecycle includes the following process groups: Initiating, Planning, Executing, Monitoring and Controlling, and Closing (Ucertify, n.d.a). This integration of the PMBOK process groups with the formulated strategy results in a PMP that includes four practical phases tailored to project-specific constraints, which are the distributed nature of the organization and the stakeholders' needs. These phrases are:

1. The assessment and planning phase confirms the project charter, budget, and success criteria with the stakeholders (Ucertify, n.d.b). It also inventories all the organization's sites' local IT network devices and employees' laptops and assesses the best-suited hardware for the project based on the adopted hardware selection strategy. For example, when considering equipment cost, the stockholders are presented with OpEx (Operating Expenses) vs. CapEx (Capital Expenditures) budget approach, with the OpEx approach being more aligned with the hardware

selection strategy than the CapEx approach. Meraki network devices fit the OpEx approach as they come with a cloud subscription-based service that includes device management capabilities, support, and firmware updates.

2. The procurement and staging phase implements a “Smart Hands” strategy. For example, rather than shipping devices directly to the field, all Cisco Meraki network appliances and Lenovo ThinkPad laptops are first routed to a central IT depot to pre-configure the network settings and create an image of the laptops. This process ensures that the devices are “plug-and-play” when they arrive in the organization’s locations.

3. The pilot deployment phase selects two sites (one northern, one southern), which will act as a rollout operational test by testing shipping and the installation instructions for non-technical staff. This will allow the IT team to adjust the rollout plan and troubleshoot issues.

4. The rollout execution phase deploys the devices in waves, minimizing the risk of widespread network disruption and downtime due to defective devices or authentication issues that could otherwise impact the entire network and the organization's flow.

In conclusion, the refreshing IT equipment PMP's primary goal is to manage the replacement of network equipment and employee laptops across the organization while reducing the risk of unhappy stakeholders and ensuring that the equipment installed is performant, secure, and up to date. The PMP achieves its goal by integrating a hardware selection strategy that focuses on remote manageability and durability within a PMBOK lifecycle framework. The resulting PMP incorporates four phases: assessment and planning, procurement and staging, pilot deployment, and rollout execution. Ultimately, the plan mitigates risks such as downtime and high TCO while delivering ROI and up-to-date, secure, and performant hardware, ultimately meeting stakeholder expectations and eliminating the risk of unhappy stakeholders.

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