KN University Network Design

COIT13236 – Cyber Security Project

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Table of Contents

Network Management Plan

Network Management Plan:

A Network Management Plan is an essential report expected to ensure the compelling management and upkeep of an affiliation's network system. For KN University, this plan hopes to guarantee smooth network action, upgrade execution, and resolve issues immediately to help academic and regulatory functions.

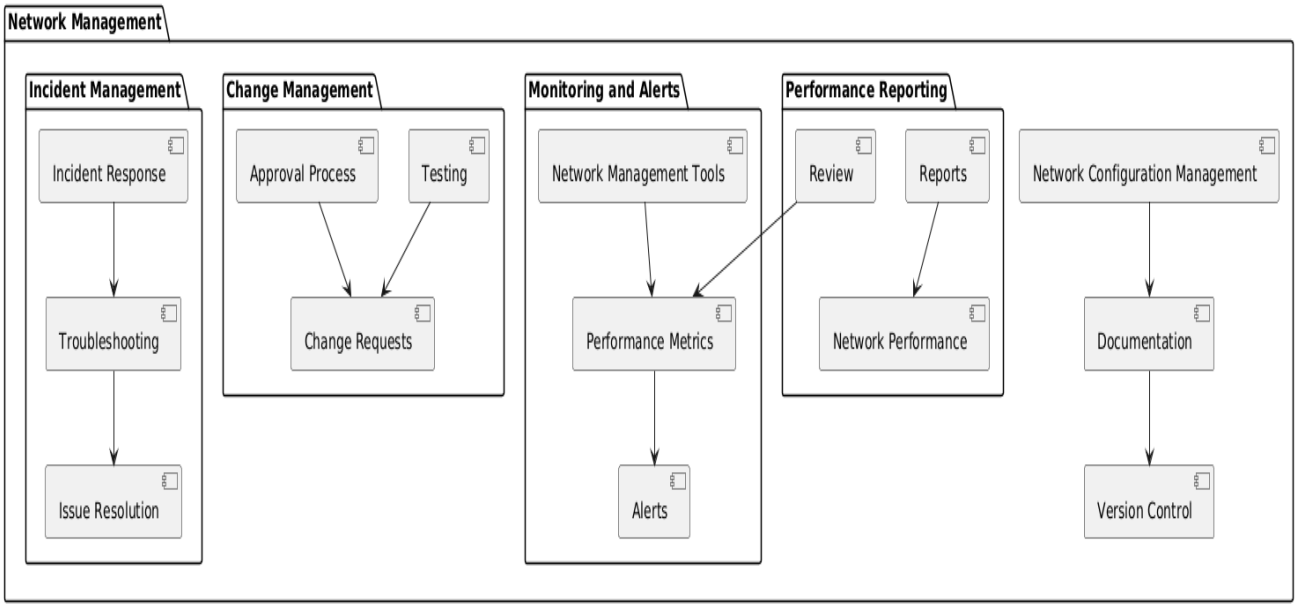

Fig: Network Management Plan

The network management organisation for KN University is portrayed in the diagram, alongside the strategies for network upkeep and observing. This association helps KN University in keeping a trustworthy and secure network by ensuring that changes are painstakingly dealt with and that issues are immediately settled.

Components:

1. **Network Configuration Management:**

   i. Documentation: Keep up with current network diagrams that obviously portray geography, devices, connections, and IP addressing utilizing apparatuses like Visio, Lucid chart, or draw.io. Consistently update and safely store design documents for all organization gadgets, guaranteeing they mirror any progressions made to the network.

   ii. Version Control: Use version control frameworks like Git to oversee and follow design document changes, considering rollbacks and coordinated effort. Lay out clear commit rehearses with enlightening messages. Carry out computerized reinforcements to safely store designs, guaranteeing fast recuperation when required.

2. **Network Monitoring and Alerts:**

   i. Tools: Deploy advanced network management tools to ceaselessly screen network wellbeing, execution, and security. Tools like Cisco Packet Tracer or Wireshark give profound experiences into network traffic, gadget status, transfer speed use, and expected bottlenecks.

   ii. Cautions: Set up computerized alarms to advise executives of network issues like gadget failures, traffic spikes, or security breaks considering predefined limits. Guarantee cautions are sent through various channels (email, SMS, dashboards) for speedy reactions. Redo alarms to focus on basic issues over non-critical ones.

3. **Incident Management:**

   i. Incident Response: At KN University, foster an organized technique for responding to network occurrences and blackouts, illustrating clear steps for recognizing, containing, and settling issues. Incorporate communication protocols to keep stakeholders informed. Structure devoted incident response groups with characterized jobs and obligations, guaranteeing they are prepared to deal with everything from minor interruptions to significant blackouts.

   ii. Troubleshooting: At KN University, carry out normalized troubleshooting cycles to proficiently analyse and determine network issues, utilizing indicative devices and a sensible grouping of checks. Keep an investigating agenda to guarantee thoroughness. Report every incident's means and results to support learning and upgrade future responses.

4. **Change Management:**

   i. Approval Process: At KN University, lay out an organized endorsement cycle for network changes, including stages for demand submission, influence evaluation, survey, and approval. Report all solicitations and endorsements in a concentrated framework for straightforwardness. Structure a change the executives board with delegates from IT, security, and tasks to survey and endorse changes in view of their effect.

   ii. Testing: At KN University, establish an organizing environment that reflects the creation arrangement for testing network changes. Foster itemized testing techniques covering usefulness, execution, and security, and perform relapse testing to abstain from affecting existing frameworks. Get ready and test rollback plans in the organizing environment to guarantee fast inversion on the off chance that issues emerge. This approach guarantees changes are protected and viable before deployment.

References

Cisco (2024) Network Management Best Practices. Available at: https://www.cisco.com/c/en/us/solutions/enterprise-networks/network-management.html (Accessed: 2 August 2024).