LinkTech

Linking you to the Future of Technology

Dear Techseeds,

Congratulations! Your network team has been hired to run the Australian division of LinkTech, an international technology research and development company with locations in the USA, Germany, France, Tanzania, India and Australia.

The Australian division consists of four branches, namely; Brisbane, Melbourne, Perth and Sydney. LinkTech is an innovative company that pushes the boundaries of technology to create new solutions and improve existing ones. Their services include developing prototypes, testing and evaluating technologies, and providing consulting services to help other companies implement new technologies.

The USA branches are newly acquired and your team has been hired to evaluate the current communication networks in place at all four branches, recommend changes to these communication networks, where needed, and then implement these changes.

The following information has already been gathered from the branches:
- Each branch has an internet connection, but this connectivity is currently primarily used by employees for surfing the web.

- Secure WiFi is required for all employees at all LANs, as well as guests visiting these branches.

- Each branch needs to be able to connect securely with every other branch. LinkTech deals with sensitive information and the protection of this information as it passes through public networks must be guaranteed.

- It must be noted that there are many areas of these LANs that are misconfigured or have design flaws.

- VoIP is required, but does not seem to be working at any branches.

- A consolidated, hierarchical IPv4 addressing scheme must be used across the LANs.

- Network event logs for key network devices must be kept for all branches.

- Each LAN should cater for at least 140 employees:
    - 22 in Accounting & Finance
    - 10 in ICT Services
    - 15 in Human Resources (HR)
    - 20 in Executive Management
    - 15 in Legal
    - 10 in Sales & Marketing
    - 13 in Operations
    - 35 in Research & Development
- It is anticipated that the network users will grow by around 70% over the next 5 years.

Your team is initially tasked with the following:
- Each LAN must be evaluated against established Network Design Principles.

- Proposed changes identified by your team must be documented in a 'Request for Change' document.

- Once approved, your team will use the 'Request for Change' document to implement the changes in the networks (it must be noted that no 'Request for Change' document will be approved without proper motivation).

- A detailed logical network topology must be created.

- Detailed network documentation must be created for each LAN and populated with as much detail about network devices as possible.

- The following network policies must be created for your branches:
    - Acceptable Use Policy
    - Disaster Recovery Policy
    - Failover Policy
    - Backup/Archiving Policy

*Please note: In an effort to save costs, it is advisable to redeploy existing equipment to branches where they may be better utilized, rather than purchasing new equipment. New equipment will be considered if motivated.

Any technical related questions can be directed to **Prof Kerry-Lynn Thomson** via email.

Wishing you all the best for the project ahead,

On behalf of LinkTech CEO