**Project Deliverable #4: VPN Tunnel Configuration, Testing, and Documentation**

**Description**:  
In Week 5, the team focused on configuring VPN tunnels between network endpoints, testing network performance, and documenting the finalized topology. The deliverable involved the following key tasks:

**1. VPN Tunnel Configuration (30-Sep-24 to 4-Oct-24):**

* **Task**: Configured VPN tunnels between multiple network endpoints using Cisco firewall.
* **Details**: Established both **Site-to-Site VPN** for secure inter-branch communication and **Client VPN** for remote user access. Team members ensured encryption protocols were correctly implemented to protect data in transit and troubleshoot any connectivity issues.

**2. Testing the Network Topology (1-Oct-24):**

* **Task**: Conducted thorough testing of the VPN topology.
* **Details**: Verified the functionality of the VPN connections, tested encryption protocols, and ensured bandwidth efficiency. The team resolved issues related to network routing, encryption handling, and user access. Testing also included verifying the security of remote access connections.

**3. Documentation of Network Topology (2-Oct-24):**

* **Task**: Documented the VPN topology, including all configurations and security protocols.
* **Details**: Created detailed documentation outlining the site-to-site VPN setup, client VPN access methods, and the security measures implemented (e.g., encryption, access control lists). The documentation will be used for future project phases and deliverables.

**4. Group Meeting 3 (2-Oct-24):**

* **Task**: Held a group meeting to review the week’s progress.
* **Details**: Discussed the successful VPN tunnel configurations, testing outcomes, and reviewed the documentation. The team also identified areas needing improvement and assigned tasks for further testing and optimization.

**5. Advisor Meeting (3-Oct-24):**

* **Task**: Met with the project advisor to discuss progress.
* **Details**: Presented the VPN configuration results and received feedback on improving the network design and security protocols. The advisor provided insights on optimizing encryption methods and bandwidth handling for improved VPN performance.

**6. Research on VPN Security Enhancements (30-Sep-24 to 3-Oct-24):**

* **Task**: Researched encryption protocols and security enhancements for the VPN setup.
* **Details**: The research focused on improving data integrity, VPN resilience against attacks, and methods for enhancing encryption protocols. The findings will guide future adjustments to the network security configurations.

**7. Progress Report #3 + Activity Log (3-Oct-24):**

* **Task**: Compiled the Week 5 progress report and activity log.
* **Details**: Documented the week’s achievements, including VPN tunnel configuration, testing results, and feedback from the advisor. This report serves as a checkpoint for monitoring the team's progress and adjusting future tasks.

**Deliverables:**

1. **Testing Report**: Detailed results from the network testing phase, including encryption verification and bandwidth optimization.
2. **Documentation**: Comprehensive records of the VPN topology, security protocols, and access controls.
3. **Troubleshooting Log**: A list of issues encountered during testing and how they were resolved.

**Next Week’s Agenda (Week 6)**

1. **Optimization of VPN Configuration**: Enhance encryption protocols and bandwidth efficiency based on feedback from testing and advisor meetings.
2. **Begin Penetration Testing**: Conduct security assessments to identify vulnerabilities in the VPN setup.
3. **Prepare for Mid-Project Presentation**: Develop slides and practice presenting progress to stakeholders.