# Work Breakdown Structure

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**Project Name:** Linux Network Performance Evaluation

1. Requirement Analysis (03/03/2025 – 04/04/2025)
   1. Entry Criteria
      1. Team Kick-Off Meeting Agenda
      2. Team-Client Kick-Off Meeting Agenda
      3. Team Contract
      4. Meeting Minutes (Kick-Off Meetings)
   2. Develop Project Proposal
      1. Stakeholder Register
      2. Project Charter
      3. Client Contract
      4. Meeting Minutes (Team & Client)
   3. Develop Project Plans
      1. Stakeholder Management Strategy
      2. Risk Register
      3. Issue Log
      4. Communications Management Plan
      5. Communications Management Plan
      6. Scope Statement
      7. Work Breakdown Structure
      8. Project Schedule
         1. Schedule baseline showing originally planned activities with their durations and milestones
         2. Network Diagram
         3. Critical Path Analysis
      9. Upskilling Plan
      10. Estimated Cost
      11. Milestone Report
      12. Project Proposal submission
      13. Project Proposal presentation

**Milestone 1 – Project Proposal**

* 1. Exit Criteria
     1. Client feedback on proposal document
     2. Approval of proposal document from client

1. Evaluation Planning (07/04/2025 – 06/06/2025)
   1. Entry Criteria
      1. Client approval of project proposal
   2. Researching And Upskilling
      1. Team members upskill for necessary skills
      2. Network tools (iPerf & D-ITG)
   3. Define evaluation scenarios
   4. Define evaluation environment
   5. Exit Criteria
      1. Client and supervisor feedback on evaluation planning

**Milestone 2 – Mid-Term Review**

1. Evaluation Case Development (07/06/2025 – 20/07/2025)
   1. Entry Criteria
      1. Client and supervisor feedback on evaluation planning
   2. Define evaluation scenario
      1. Requirement traceability
   3. Exit Criteria
      1. Review and validate evaluation cases
      2. Validate with client
      3. Client feedback

***The Evaluation Environment and Evaluation Execution Phases Combined Will Have Three Sprints, One for Each Linux Operating System.***

1. Evaluation Environment Setup
   1. Entry Criteria
      1. Establishment of hardware and software
      2. Prepare evaluation data
      3. Configure evaluation environment
         1. Configure two computers as routers
         2. Configure three separate networks
      4. Write cases for each scenario
   2. Exit Criteria
      1. Fully functional evaluation environment and approved evaluation cases
      2. Client feedback
2. Evaluation Execution Phase
   1. Entry Criteria
      1. All exit criteria from previous steps
         1. Evaluation environment is approved and functional
   2. Exit Criteria
      1. All evaluations are performed, and results are documented
         1. Conduct a minimum of 10 evaluation runs for each operating system
            1. Configure environment
            2. Each evaluation consists of 12 packet sizes
            3. Each evaluation will be run on both IPv4 and IPv6 separately
            4. Each evaluation will be run on both TCP and UDP separately
         2. Implement evaluation case failure protocol
         3. Client feedback
         4. Execute evaluation cases, scripts, pings
         5. Record and document results for each evaluation run
         6. Analyse performance metrics to determine operating system performance
         7. Client feedback
         8. Move onto next sprint

Sprint 1: Ubuntu (21/07/2025 – 17/08/2025)

Evaluation Environment Setup (21/07/2025 – 03/08/2025)

Evaluation Execution Phase (04/08/2025 – 17/08/2025)  
**Milestone 3 – Completion of Ubuntu Evaluation**

Sprint 2: Fedora (18/08/2025 – 14/09/2025)

Evaluation Environment Setup (18/08/2025 – 31/08/2025)

Evaluation Execution Phase (01/09/2025 – 14/09/2025)

**Milestone 4 – Completion of Fedora Evaluation**

Sprint 3: Kali (15/09/2025 – 12/10/2025)

Evaluation Environment Setup (15/09/2025 – 28/09/2025)

Evaluation Execution Phase (29/09/2025 – 12/10/2025)

**Milestone 5 – Completion of Kali Evaluation**

1. Evaluation Closure (13/10/2025 - 31/10/2025)
   1. Entry Criteria
      1. Compile and compare results of evaluation
         1. Analyse performance pattern
         2. Summary of the network performance evaluation
         3. Create visualisations and reports
         4. Final poster
   2. Exit Criteria
      1. Document closure report
      2. Evaluation results and analysis
      3. Organise folders for portfolio
      4. Client feedback

**Milestone 6 – Final Poster**