



Project for the Course Software Defined Systems

Project Title

Comparative Analysis of Software Defined Networking Architectures

Project Overview

Students will conduct a comprehensive literature review and analysis of various software-defined networking (SDN) architectures. The goal is to understand their design principles, advantages, limitations, and applications in different scenarios.

Objectives

- Explore different SDN architectures and their components.
- Analyze the impact of SDN on network management and performance.
- Evaluate case studies where SDN has been implemented.
- Present findings in a structured format.

Project Components

1. Literature Review
 - Research existing SDN architectures (e.g., centralized vs. distributed).
 - Identify key components such as controllers, switches, and applications.
2. Architecture Analysis
 - Compare and contrast different architectures based on criteria such as scalability, flexibility, security, and performance.
 - Discuss the role of protocols like OpenFlow in these architectures.
3. Case Studies:
 - Select a few case studies where SDN has been effectively implemented.
 - Analyze the outcomes and benefits observed in these cases.

Future Trends

- Investigate emerging trends in SDN, such as integration with cloud computing and IoT.
- Discuss potential future developments in SDN technology.



Deliverables

- A detailed research paper summarizing findings, including:
 - Introduction to SDN and its significance.
 - Comparative tables and diagrams illustrating architectural differences.
 - Case study summaries and analyses.
 - Conclusion with insights on the future of SDN.
 - A presentation summarizing key findings for the class.

Conclusion

This project will enhance students' understanding of software-defined systems through theoretical exploration and critical analysis, preparing them for discussions and further studies in the field.