

BANDWIDTH REQUIREMENT ANALYSIS ON LEARNING MANAGEMENT SYSTEM (MOODLE PLATFORM)

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BACKGROUND :

The Muslim University of Indonesia (UMI) implements online learning using Moodle as a tool for managing classes, commonly referred to as LMS. The Moodle LMS applied at UMI is also known as Kalam. However, in the implementation of distance learning at UMI, several issues have arisen, such as the server being inaccessible and long loading times when accessing content on Kalam, among others. Based on these issues, it is necessary to conduct research to analyze the bandwidth requirements for online learning at the Muslim University of Indonesia.

METHOD :

The bandwidth analysis will involve measuring throughput, delay, and packet loss in network traffic. Additionally, this research will also analyze the performance of the server kalam.umi.ac.id when accessed by more than 100 users simultaneously.

RESULTS & DISCUSSION:

Observations of app traffic and DB traffic from September 1 to 30, 2021, showed that the bandwidth requirements for the Kalam application were very high. This is indicated by the number of users reaching 1,000 accessing Kalam at the same time.

CONCLUSION :

The results also showed that the data communication path between users and the Kalam server is divided into two lines, but line 2 is more heavily burdened and dominates. An abstract contains a summary of the entire research, briefly explaining the introduction, objectives, results, and conclusions.

KEYWORDS : moodle, bandwidth, traffic