

## ABSTRACT

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In education, nearly all schools are already using internet to get the process of learning. But among of schools are less care about bandwidth and network security. In addition there are many students who are absent during the lesson. To overcome some of these problems, so that it will be built the internet network to facilitate students in learning, otherwise it will be equipped with *HTB tools*, *web authentication with kerberos5 on zeroshell*, monitoring the performance from server by cacti to make admin easier in monitoring, and the *SMS gateway* system are integrated with presence web portal. Most of the systems that have been built, it hopes that could provide a solution to Madrasah Aliyah Negeri 1 Model Bojonegoro. It can be concluded that Madrasah Aliyah Negeri 1 Bojonegoro have a new system, there is authentication server and the main server in which there is information with kerberos authentication, bandwidth management, server monitoring with cacti, and a web portal that is integrated with system sms gateway.

*Keywords: Kerberos5, web authentication, zeroshell, HTB Tools, Sms Gateway.*