ABSTRACT

INTERNET EXCHANGE POINT NETWORK IMPLEMENTATION USING IXP MANAGER AND BIRD FOR INTERNET EXCHANGE POINT NETWORK MANAGEMENT OPTIMIZATION IN IDCLOUDHOST

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Internet Exchange Point (IXP) is a network infrastructure providing facilities for connecting devices to exchange traffic. In building an IXP network, there are several main components: routers, switches, and IXP member devices. This research uses the UCLA method according to the scenario that has been made based on qualitative data from interviews with IDCloudHost. The research object is the IXP network owned by IDCloudHost, which was previously built using BIRD as the primary infrastructure in the form of a platform. This study aims to optimize the existing IXP network management process by re-implementing it using IXP Manager as the primary infrastructure. The research results show that the IXP network management process was done manually. BIRD configuration needed to be done on several different devices and could only be operated by IDCloudHost's Chief Technology Officer. The configuration process was done manually. After using IXP Manager, IXP network management on IDCloudHost Bogor configurations can generate automatically. All technicians operate the availability of IXP network performance graphs, which are more centralized and can. In addition, it also has an impact on the management process that can be carried out from a technical and administrative side, can be developed and integrated into various existing services at IDCloudHost, optimizes employee performance, and increases the maturity and business continuity of the company which means IXP network management at IDCloudHost can be optimized by using IXP Manager and BIRD.

Keywords : Internet Exchange Point, IXP, BIRD, Infrastructure.