



AMPLE: A NEW METHOD OF ADAPTIVE MULTI-TOPOLOGY BORDER GATEWAY PROTOCOL (MT-BGP) TRAFFIC ENGINEERING SYSTEM BASED ON VIRTUAL ROUTING TOPOLOGIES

K. Rowther Naina ⁽¹⁾

⁽¹⁾ M.Phil (SSP) Research scholar, Department of Computer Applications, Alagappa University, Karaikudi, India.

Abstract

The Internet is a collection of networks, each controlled by different administrations. Traffic engineering is an important mechanism for Internet network providers seeking to optimize network performance and traffic delivery. Routing optimization plays a key role in traffic engineering, finding efficient routes so as to achieve the desired network performance. In this proposed method presents an intelligent multi-topology BGP (MT-BGP) based interdomain traffic engineering (TE) scheme that is able to handle unexpected traffic fluctuations with near-optimal network performance. The proposed method provides the AMPLE: An Adaptive MT-BGP traffic engineering based on virtual routing topologies is mainly focused to create own path in traffic congestion. TE system based on virtualized BGP routing that enables short timescale traffic control against unexpected traffic dynamics using multi-topology BGP-based networks. The framework contains three major components, namely Offline Link Weight Optimization (OLWO), Adaptive Traffic Control (ATC) and Admission Control (ADC) algorithm. Admission control algorithm achieved low delay and high throughput Instead of frequently changing BGP link weights then create the own path based on virtual routing topologies, we use multi-topology BGP routing protocols that allow adaptively splitting traffic across multiple routing topologies.

Author Keywords

Admission control algorithm, AMPLE, Transmission Control Protocol, Traffic Engineering

ISSN Print:

Source Type: Journals

Publication Language: English

Abbreviated Journal Title: GJESR

Publisher Name: Somil Shah

Major Subject: Physical Sciences

Subject area: Computer Science Applications

ISSN Online: 2348-8034

Document Type: Journal Article

DOI: <https://doi.org/10.5281/zenodo.3174803>

Access Type: Open Access

Resource Licence: CC BY-NC

Subject Area classification: Computer Science

Source: SCOPEDATABASE