

An Adaptive Congestion Control Algorithm for Transmission Control Protocol (TCP) in Multi-Hop Wireless Networks

TECHNOLOGY DESCRIPTION

This invention introduces a method to adjust congestion control mechanism of TCP based on the network condition.

TECHNOLOGY FEATURES

This invention monitors the network using the arrival of acknowledgement to estimate wireless link condition. This prevents any feedback seeking from the network. This technology is able to maintain the layers independence and proposes. This technology introduces a new adaptive increase or decrease mechanism which control the transmission rate of TCP. This invention introduces a new loss based mechanism which is able to distinguish between losses and make a decision of retransmission.

ADVANTAGES

- Finer and flexible update in congestion window
- Dynamic action selection

INDUSTRY OVERVIEW

Prospect: Telecommunication Companies, Network Solutions Provider, Cable TV Companies

Telecommunications comprises not only telephone service, but also advanced technology-based services including wireless communications, Internet, fiber-optics and satellites. The telecommunications industry is expected to grow to about a \$6.5 trillion sector in 2018 at the global level. (this figure includes equipment and related services, as well as subscriber revenues and other business revenues.) The United States market is expected to grow to \$1.7 trillion for 2018. The trend for telco consumers are that many nowadays recognize the value of phone service using VOIP, driving millions of households and businesses worldwide to signed up for this service as an alternative to landlines, often offered through their cable providers. In other words, users nowadays prefer to make their phone calls, download data, view entertainment or access the Internet via smartphones and tablets. Potential customers for this invention are Telco companies such as Digi, Maxis and Celcom, Cable TV companies such as Astro, IPTV and network solutions provider such as Cisco, FastSoft, TM, Interunix, i-Tech, and others.



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