

Performance Analysis Between Distance Vector Algorithm (DVA) & Link State Algorithm (LSA) For Routing Network

Asmaa Shaker Ashoor
University of Babylon
Asmaa_zaid281@yahoo.com

Abstract

In this paper, we survey the public presentation between two adaptive routing algorithms: Link state algorithm (LSA), which is centralized algorithm and Distance vector algorithm (DVA), which is distributed algorithm. The primary purpose of this paper is to compare two dynamic routing algorithms. Besides, we represent an overview of these algorithms distinguish similarities and differences between (LSD) & (DVA). A major part of this paper is to survey these algorithms, and analyze the results.

Keywords: LSA, DVA, routing, network traffic, comparison, simulation, analysis.

الخلاصة

في هذا البحث، نقدم مسح عام بين اثنين من خوارزميات التوجيه، وهي خوارزمية حالة الارتباط (LSA) وهي خوارزمية مركزية وخوارزمية متجه المسافات (DVA) وهي خوارزمية توزيعية. ان الغرض الرئيسي من هذه الورقة هو المقارنة بين الخوارزمية المركزية والخوارزمية التوزيعية الى جانب ذلك نقدم لمحة عامة عن هذه الخوارزميات عن طريق تمييز اوجه التشابه والاختلاف بين (LSA) و (DVA) والجزء الاكبر من هذا البحث هو مسوحات لهذه الخوارزميات وتحليل النتائج. الكلمات المفتاحية: خوارزمية LSA، خوارزمية DVA، الموجه، حركة مرور الشبكة، المقارنة، المحاكاة، التحليل.

1. Introduction

A router is used to supervise network traffic and detect the better route from source to destination in a network (Larry, 2003, Andrew, 2003). A router should have some information about the network position to carry any determination. The router utilizes the routing algorithms to calculate the better route from source to destination. A routing is rules which are stored in the router memory. The role of the routing algorithms is working, determination for the router to determine the best paths. This paper identifies two cases of adaptive routing algorithms. These are (LSA) (Andrew, 2003, James, 2003) and (DVA) (Andrew 2003, Gambiroza 2004), as well known as globally and un-global routing. In bout the algorithms, every node has a routing table to save the information around the position of the network. The routing tables, like: fixed table, fixed central table and dynamic table can be established in dissimilar path, relying on the algorithm utilized (Larry, 2003, Andrew, 2003).

2. Survey of routing algorithms

Routing algorithms are dependable for furtherance the data packets through routes to offer a carrying out. In this paper, we explain the important aspects that relate to the two cases of adaptive routing algorithm (LSA and DVA). They are called next-hop routing, these are, all data packet that has a destination node Id and all nodes ensure adjacent node Id can denote that the following hop to follow that packet. The following hop of that node can become nil, in that instance, these nodes do not recognize where to follow data packets to that destination. The primary concept in the end comparison between LSA and DVA is introduced and improvements for briefly.