

网络、通信、安全

## TRUST-TIE: 可信的域间出口选择算法

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收稿日期 2008-1-14 修回日期 2008-4-23 网络版发布日期 2009-2-19 接受日期

**摘要** 域间出口选择算法虽然考虑的是本域内流量的出口选择, 但BGP出口的改变会影响邻居域流量模式的改变, 从而可能会造成邻居域的网络拥塞并引起邻居域流量的重计算, 进而引发路由振荡风险。针对以往出口选择算法主要根据域内网络状况选择出口的不足, 依据社会交往中会形成一定的信任关系, 然后指导今后交互的特点, 提出了一种基于信任的域间出口选择算法, 算法的主要思想是在基于域内网络状况来选择出口的基础上, 综合了对到达目的路径上其它域的考虑, 在达到充分利用网络资源的基础上, 以减少协议代价, 提高路由的稳定性。理论实验分析表明, 算法具有经典土豆算法同样功能的同时, 在请求拒绝率、网络吞吐量、平均路径长度和路由的稳定性等方面都比较理想。

**关键词** [域间出口选择](#) [网络流量](#) [路由优化](#) [信任演化](#) [稳定性](#)

分类号

## TRUST-TIE: Tunable inter-domain egress selection algorithm based on evolution of trust

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### Abstract

Although inter-domain egress selection is considered by inter-domain, the change exports flow of BGP can affect traffic patterns of neighbor domain, which may result in network congestion domain neighbors, the heavy traffic engineering domain, then the risk of oscillation of routing. In response to previous algorithm select egress only by the statue of inter-domain, an inter-domain exports selection algorithm based on trust is proposed in this paper, which corresponds to the social interaction can build a certain relationship according for trust to guide future interactive. The main idea of the algorithm is to select the egress on the basis of a inter-domain network status, take full advantage of network resources on the basis of agreements to reduce costs, improve routing stability. Theoretical analysis shows that experiment, the classic hot potato algorithm has the same function algorithm, while refusing the request of bandwidth, network bandwidth delivery volumes, the average path length and routing stability and have more ideal.

**Key words** [egress selection](#) [network traffic engineering](#) [optimal routing](#) [evolution of trust](#) [stability](#)

DOI: 10.3778/j.issn.1002-8331.2009.06.027

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