

Reading critique #7

Paper : O. Nordström and C. Dovrolis, “Beware of BGP attacks,” ACM SIGCOMM Comput. Commun. Rev., vol. 34, no. 2, p. 1, 2004.

1. Summary

This paper attempts to raise awareness within the network research community about the security of the interdomain routing infrastructure. It introduced several attack objectives including blackholing, redirection, subversion, instability. It also introduced several attack mechanisms including de-aggregation, contradictory advertisements, advertent link flapping. Then it introduced several countermeasurements including route filtering, S-BGP. Finally, it brings out some very recent research proposals including Secure Origin BGP, MOAS-based conflict detection, Interdomain Routing Validation IRV, and last the discussions.

2. Strength of the paper

1. The paper makes very complete and clear survey on the security of the interdomain routing infrastructure.

3. Weakness of the paper

1. The paper did not propose anything new or its own point of view.

4. My reflection

The design of the interdomain routing infrastructure lacks authorization so it would be vulnerable in many aspects. I cannot image how vulnerable the routers are in that time of view. The internet traffic can be so easily manipulate. It not only affect individuals but could make influence at a global scale.