Abstract

These days networks are not getting any smaller, they are increasing in size and it is becoming tedious job for network administrators to debug the network, since they rely on traditional tools such as ping and traceroute for this job. This paper puts forward an automated and systematic approach to test and debug a network called Automatic Test Packet Generation (ATPG). ATPG produces a model which is not dependent on devices after reading configuration from routers. The model is used to generate minimum number of test packets to cover every link in a network and each rule in network. ATPG is capable of investigating both functional and performance problems. Test packets are sent at regular intervals and separate technique is used to localize faults. The working of few offline tools which automatically generate test packets are also given, but ATPG goes beyond the earlier work in static checking (Checking liveness and fault localization).

References

- Hongyi Zeng, Peyman Kazemian, George Varghese and Nick McKeown, "Automatic Test Packet Generation," IEEE/ACM TRANSACTIONS ON NETWORKING,
A Capacious Scrutiny on Automatic Test Packet Generation


Index Terms
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