# A Heuristic Coconut-based Algorithm

#### Abstract—KIKOU

 $Index\ Terms$ —Broad band networks, quality of service, WDM.

#### I. Introduction

Since years, the main problem in network maintenance is network debugging. Bugs are really difficult to spot with tools like ping, traceroute and SNMP agents, which are the most used to diagnose issues. [?]

Hopefully, this could change thanks to the deployment of Software-Defined Networks. SDN is an architecture developped to fix the mess in the control plane. It acts like a logically-centralized controller which manages switches by installing (or uninstalling) rules in them. The controller also read traffic statistics and respond to events. An handler is attached for each events and respond to its event by applying the routine establised by the network engineer.

Thanks to SDN, it should be possible to automate troubleshooting, this will be seen in (TODO: how to reference to a next section?).

## II. SDN LAYERING, THE KEY TO A BETTER ARCHITECTURE

### III. NETWORK TROUBLESHOOTING

Avant SDN AprÃÍs SDN : voir page 2 a Nice way (challenge pour tester l'open flow) et les solutions qui existent)

## IV.

## V. Conclusion

#### References

- M. Reitblatt, N. Foster, J. Rexford, and D. Walker, "Consistent updates for software-defined networks: change you can believe in!" in *Proceedings of the 10th ACM Workshop on Hot Topics* in Networks, ser. HotNets-X. New York, NY, USA: ACM, 2011, pp. 7:1–7:6. [Online]. Available: http://doi.acm.org/10. 1145/2070562.2070569
- [2] A. Tootoonchian and Y. Ganjali, "Hyperflow: a distributed control plane for openflow," in Proceedings of the 2010 internet network management conference on Research on enterprise networking, ser. INM/WREN'10. Berkeley, CA, USA: USENIX Association, 2010, pp. 3–3. [Online]. Available: http://dl.acm.org/citation.cfm?id=1863133.1863136
- [3] T. Nelson, A. Guha, D. J. Dougherty, K. Fisler, and S. Krishnamurthi, "A balance of power: expressive, analyzable controller programming," in *HotSDN*, 2013, pp. 79–84. [Online]. Available: http://doi.acm.org/10.1145/2491185.2491201
- [4] A. Panda, C. Scott, A. Ghodsi, T. Koponen, and S. Shenker, "Cap for networks," in Proceedings of the second ACM SIGCOMM workshop on Hot topics in software defined networking, ser. HotSDN '13. New York, NY, USA: ACM, 2013, pp. 91–96. [Online]. Available: http://doi.acm.org/10. 1145/2491185.2491186

[5] J. Rexford, "Programming languages for programmable networks," in Proceedings of the 39th annual ACM SIGPLAN-SIGACT symposium on Principles of programming languages, ser. POPL '12. New York, NY, USA: ACM, 2012, pp. 215— 216. [Online]. Available: http://doi.acm.org/10.1145/2103656. 2103683