

## PKTBLASTER SDN CONTROLLER TEST AND CBENCH COMPARISON

Open source tools may be a good starting point for testing SDN controllers during proof-of-concepts (POCs), but not for testing production-grade SDN controllers that need to be validated for real-world deployments, since they mandate higher benchmarks. Veryx [PktBlaster SDN](#) is up to the task of testing production-grade SDN controllers. It is a comprehensive one-stop test solution supporting both performance testing of SDN controllers, as well as real-world emulation of SDN networks. A detailed comparison\*\* with Cbench is as given below:

Features	PktBlaster SDN	Cbench
Rate of request transmission *	8x to 10x times	-
OpenFlow Versions	1.0, 1.3	1.0, 1.3
Maximum number of Simulated Switches	1000	256
Application Data Traffic Supported ( TCP, UDP, ARP Request, ARP Reply, Custom TCP, Custom UDP, Custom L2)	All applications	IP
Packet sizes of the test traffic	Up to 512 bytes	64 bytes
Maximum Number of Packet-in's/second on 10G Link	16M*	NA
Detailed Statistics of Tx/Rx messages for each switch and iteration.	YES	NO
Comprehensive Reporting and Analysis – Individual test reports and Comparable reports for a controller using different test configurations.	YES	NO
Automation (REST API)	YES	NO
Simulating multiple switch groups each supporting different OF versions and traffic types for a single Test	YES	NO
Controller's Switch Discovery Time (OF Connection time)	YES	NO
Robustness (Network impairment, Controller behavior while sending erroneous packets)	YES	NO
Accuracy (Timestamp based accurate latency measurement. Flow mod and packet out based performance measurement supported)	YES	NO

*Disclaimer:*

\* The comparison for transmission-in rate is based on the test results for specific test configuration (available on request) run on 10G test interface

\*\*All information presented here about Cbench is based on Veryx's own assessment



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