

## Overview

6WIND provides an enhanced version of the Intel® Data Plane Development Kit (Intel® DPDK), available either as a stand-alone module or integrated within the 6WINDGate™ packet processing software.

In addition to the baseline functionality of the Intel® DPDK, 6WIND's module provides a set of advanced data plane libraries, optimized multi-vendor NIC drivers, accelerated crypto support and virtualization support.

## 6WINDGate Performance

### Reference platform:

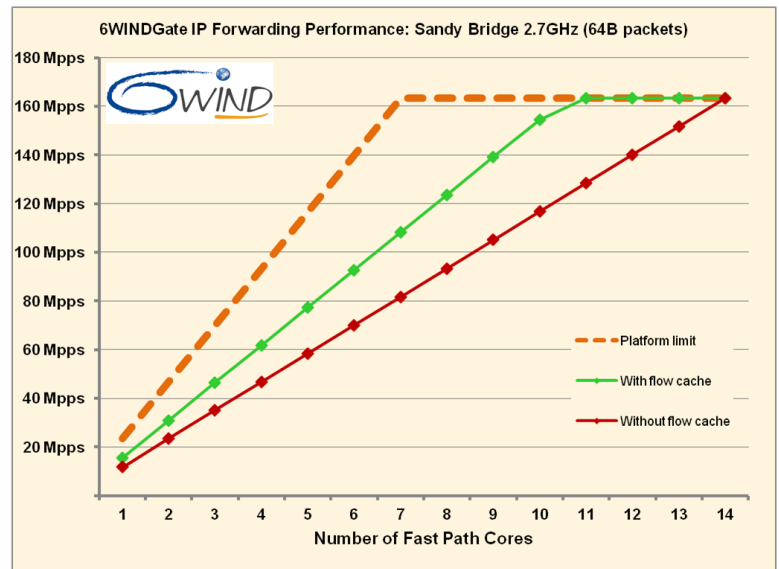
- "Crown Pass"
- Dual Intel® Xeon® Processor E5-2600 Series platform running at 2.7GHz
- 16GB RAM
- Seven 10Gbps Ethernet ports.

### IP Forwarding: 15.5Mpps per core, up to 163Mpps platform limit

- Performance scales linearly with number of cores configured to run the 6WINDGate fast path
- Performance is independent of packet size.

### IPsec: 6.3Gbps per core on 1,420 byte packets

- Using Intel® Multi-Buffer Crypto library for IPsec acceleration.



## Detailed Description

6WIND's baseline DPDK module provides standard Intel DPDK features together with basic enhancements:

- Poll mode driver (PMD) for direct access to the networking hardware without the involvement of the Linux OS
- Packet flow classification
- Enhanced monitoring and statistics
- Support for multiple Intel NICs.

Advanced, value-added add-ons also available, including:

- Intel® Multi-Buffer Crypto library for IPsec
- External Intel® Communications Chipset 89xx (formally codenamed "Cave Creek") and Cavium Nitrox hardware crypto accelerators
- VMXNET3 driver for virtualization
- Mellanox ConnectX®-3 EN series driver.

6WIND also provides DPDK training and technical support.

## Hardware Platform Support

6WIND's DPDK solution supports the following Intel hardware platforms:

- Intel® Crown Pass server board
- Intel® Hanlan Creek server board
- Intel® Rose City server board.

## Linux Support

6WINDGate supports kernel.org, Red Hat and Wind River Linux distributions.