NIFIC

Appliance for 10GbE Networks Wire-speed Packet Filtering and Forwarding

Product Brief

INTRODUCTION

The dramatic increase of network traffic has resulted in an intensive demand for products that can handle the packets at wire-speed. Software-based products are no longer capable of processing traffic loads on multi-gigabit networks and there is a strong need for hardware acceleration.

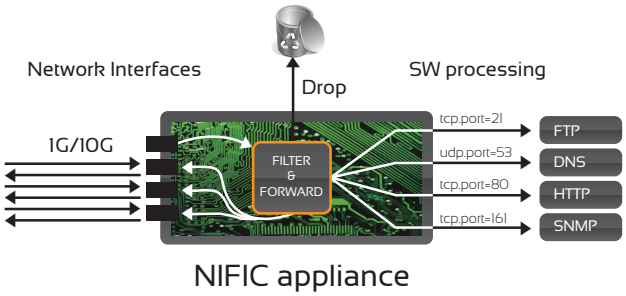
The NIFIC appliance is a solution for packet filtering and forwarding based on hardware accelerators powered by FPGA technology. Hence it is capable of wire-speed packet processing of multiple 1G or 10G Ethernet ports without any packet loss. The appliance is able to filter packets, pass packets to the host PC operating system or forward packets directly to one or more output network interfaces. These actions are driven by classification based on packet headers.

Using NIFIC appliance it is possible to effectively filter-down or categorize network traffic thus significantly reduce the amount of data for further software processing.

PACKET FILTERING AND FORWARDING

The industry best price/performance ratio product for packet filtering and forwarding, NIFIC Appliance, utilizes a hardware accelerated classification. The classification extracts information from L3 and L4 layer headers with performance up to 20 Gbps. Maximal number of action-defining rules is up to 1000 depending on their overall complexity. The rule set can be updated on-the-fly without any packet loss.

Input packet processing stage consists of packet analysis and classification that determines further packet processing. According to NIFIC configuration appropriate actions are performed.



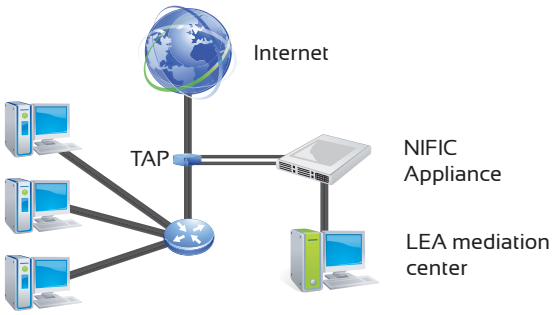
NIFIC appliance

FEATURES

- **Support for multiple 1GbE and 10GbE ports**
- **L3, L4 header filters, IP address and port ranges**
- **30Mpps processing rate guaranteed**
- **Up to 1000 classification rules**
- **Configurable packet cropping/slicing**
- **Atomic rule switching with no packet loss**
- **Open BSD Packet Filter based rules format**
- **Remote configuration via SSH or NETCONF**

USE CASE: LAWFUL INTERCEPTION

ISP is asked by law enforcement agency for interception of specific communication. ISP has to identify and capture traffic of interest and mediate acquired information to law enforcement agency. The NIFIC Appliance due to its features is capable of solving the performance most demanding sub-task of lawful interception-traffic extraction and collection.



APPLICATIONS

- **Filtering and firewalling**
- **Network traffic splitting**
- **Packet sniffing and load balancing**

ORDERING INFORMATION

Please contact INVEA-TECH for pricing and additional information about this product.

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