SFC7160 Advanced Signaling Collection Device

Product Overview

The SFC7154 is a new type of 10G/100G Ethernet signaling collection equipment, featuring high port density, diverse operating modes, flexible high-performance deployment, and convenient management and maintenance. It can adapt to various application environments and provide real-time network communication data for network information monitoring, network service analyzers, signaling analyzers, and other devices as needed.

The SFC7154 signaling collection equipment provides 52 10GE and 8 100GE interfaces, which can be flexibly configured as data input or output interfaces. The interfaces support standard transmit/receive modes and a mode that supports single-fiber transmit/receive data.

The SFC7154 signaling collection equipment offers powerful intelligent flow selection and multi-channel monitoring capabilities, supporting multi-port data tagging, aggregation, filtering, multiple packet duplication output, or load balancing output. It is particularly suitable for complex application environments with a large number of links, high network traffic, and high density, providing a convenient and efficient data collection solution for network security, protocol analysis, and signaling detection systems.

Product Features

➢ High port density, providing 4 10G/1G, 48 25G/10G and 8 100GE interfaces; The 100G interface is compatible with 40G or 4x25G/10G rates, and the 25G interface is compatible with 10G, with 4 of the 10G interfaces compatible with 25G and GE. The overall line-speed processing capability can reach 1.8Tbps.

➢ Ports can be flexibly configured as input and output interfaces, supporting single-fiber transmission.

➢ Supports recognition of various protocol messages: IP in IP, IP over IP, ICMP, TCP/UDP/SCTP, MPLS, PPTP, L2TP, GTP, GRE, VLAN, QinQ, VXLAN, and routing management message recognition.

➢ Supports recognition and matching of mobile network signaling protocols: S1-U, S6a/SGs, S1-MME, S11/Gn,

1

N1/N2/N3/N4, HTTP2, SIP, A11/A10, Radius, Gm, Sta, and other signaling interface protocols.

➤ Supports application layer protocol recognition and matching: HTTP, HTTPS, RTP, RTCP, E-mail, SMTP, POP3, COAP, and other application layer protocols

➤ Supports matching of inner and outer layer IPv4/IPv6 five-tuples, supports load balancing based on inner and outer layer IP one to five tuples, and supports same-origin and same-host for inner/outer layers

➤ Supports IP mask quintuple and flexible quintuple rules, with the IP mask quintuple capable of reaching 10,000 entries, and the flexible quintuple capable of reaching 100,000 entries.

➤ Supports matching based on MAC address, VLAN, and Ethernet type.

➤ Supports extracting signaling data according to the IMSI in the mobile core network interfaces S11/Gn/Gb.

➤ Supports data extraction based on URL, and supports data extraction based on HOST/SNI fields.

➤ Supports fixed feature code matching, with up to 64 fixed feature code templates, supports window feature code matching, and supports full packet floating feature code matching.

➤ Supports combined rule matching:

    1) Based on IP information + based on signaling protocol type.

    2) Based on IP information + based on specific IMSI.

    3) Based on IP information + based on specific URL.

    4) Based on IP information + based on transport layer payload feature codes.

    5) Based on IP information + based on application layer protocol.

    6) Supports combined rules with multiple feature codes.

    7) Supports combined rules with transport layer payload length + packet length.

➤ Supports stripping of GRE, GTP, IPIP, Vxlan, MPLS tunnel headers.

➤ Supports packet encapsulation, supports packet header output, and supports packet truncation output.

➤ Supports data deduplication and supports sampling output of the original code stream.

➤ Supports adding, modifying, and stripping VLAN of packets, and supports modifying the source MAC or destination MAC address of packets.

➤ Supports termination of GRE tunnels, with ports capable of supporting configuration of 16 IP addresses.

➤ Supports GRE tunnel encapsulation.

➤ The entire system has high customizability, and can be customized to meet specific needs for different

application scenarios.

➢ Supports a variety of traffic monitoring models, providing one-to-many convergence monitoring, one-to-many replication monitoring, uplink and downlink separation monitoring, and load balancing with same source and destination splitting output monitoring.

➢ User-friendly management interface, providing comprehensive command line management, WEB page management, SNMP management interfaces, and supports RPC interfaces.

➢ Provides detailed multi-level system logging functionality.

➢ Supports multi-device cascading and collaborative management functions, facilitating the collaborative operation and management of multiple devices.

Specifications

Features	Description
Device Dimensions	442.5 x 43.9 x 490 mm (W x H x D)
Data Interfaces	8 x 100GE (QSFP28) ports; 52 x 10GE (SFP+) ports
Management Interface	1 x 10/100/1000M management Ethernet port, RJ45; 1 x standard UART console serial port, RJ45
Management Method	Web page management method; Local or remote CLI command line interface; SNMP Management port;
Power Supply	Dual redundant power supply AC input specifications: 100 ～ 240VAC (50Hz/60Hz) or 145 ～ 350VDC DC specification input: -40 ～ -60VDC
Power Consumption	Full Load 550W
Environment	Operating temperature: 0 ～ 45℃; Storage temperature: -5 ～ 70℃; Humidity: 5% ～ 90% (non-condensing)
Environmental Standards	RoHS Compliant