MAIPU

MP7300 Datasheet

Contents

Overview

At the cloud calculation and mobile interconnection times with the fast increasing of the service traffic, the development trend of the customer service diversifying and network flatting makes the aggregation capability requirement of the network for the router higher. High reliability, high performance, high density, high security, and green are the urgent requirements of the customer for the aggregation router. Based on the customer requirements, Maipu puts forward the new-generation Gigabit centralized service aggregation router MP7300-06.

MP7300-06

MP7300-06 architecture design is advanced, and the control and forwarding planes are separated; during the control switching, it can realize the "0" packet loss of the data forwarding. With the independent service processing unit, MP7300-06 realizes 7.5~15Mpps forwarding performance; MP7300-06 owns rich interface types, supports 124 1000M Ethernet ports at most, has the strongest aggregation capability in the industry, realizes the high-performance IPsec, and adopts the advanced hardware design scheme, saving the energy and power.

For the large/middle enterprise users and industry users, such as carrier, finance, and government, MP7300-06 can serve as the egress router of the small city aggregation and uplink, county aggregation, and middle Internet.

Product Features

1. Advanced architecture, high performance

The control and forwarding planes are separated completely, because 90% system problems appear on the control plane; during the control switching, the data forwarding can realize the "0" packet loss and the device stability is high; Independent high-speed data bus, realizing 160G switching capacity and Gigabit wire-speed forwarding, and ensuring the high performance of the system; Independent SPU, 36/72-core CPU, realizing 7.5~15Mpps forwarding performance and the iterative upgrade of the performance, protecting the investment.

2. Rich interface types, high-density interface

Provide 1000M Ethernet, 155M POS, 155M CPOS, 622M POS, and 155M ATM interfaces ; Support 124 1000M Ethernet ports at most and have the strongest aggregation capability in the industry;

3. High-performance IPsec

With independent security multi-service card, realize higher security performance, IPsec VPN SM1 encryption performance reaches 1G bps

4. Green energy-saving

Dynamic CPU core enabling: enable the appropriate CPU according to the network load, making the CPU power consumption reduce by 30%;The key Ethernet interface circuit design completely supports IEEE 802.3az standard "EEE" (Energy Efficient Engine) energy-saving technology; enter the low-power consumption mode automatically when the Ethernet port is idle; the power consumption of the whole device reduces by 15%; Compared with the same kind of products, the power consumption of the whole device reduces by 15%~40%, saving the power and electricity for the customer.

Product Specification

Hardware specifications	
Product Model	MP7300-06
Throughput	7.5 –15Mpps
Memory	4G
Fixed Interface	4GE (Combo)
Control slot	2
SPU Slot	1
Service slot	6
Fan Slot	1
Power redundancy	1+1
SD Card	Support
Dimension (L x W x H)	440mm×436mm×222mm
Input voltage (AC)	100–240V 50–60Hz
Max power consumption	250W
Temperature	work temperature: 0–40℃
	Storage temperature:-20-50℃
Humidity	work humidity: 10–90%, Non-condensing
	Storage relative humidity: 5–95%, Non-condensing

Software features		
Link-layer protocol and technology	WAN	ATM
		HDLC
		PPP, support LCP negotiation function and PAP/CHAP authentication
		Virtual Ethernet
		Ethernet, Ethernet II, 802.3x, 802.1p, 802.1Q
Network Protocol	Routing protocol	Static route,
		RIP v1/v2
		OSPF v2
		IS-IS
		IRMP
		BGP
		ECMP, Policy Routing, Recursive Routing
	Multicast protocol	IGMP v1/v2/v3
		PIM-DM, PIM-SM, PIM-SDM, PIM-SSM
		MSDP
	IP application	DHCP Server, DHCP Client, DHCP Relay

		DNS
		FTP Server, FTP Client
		Ping, Trace
		NTP
Network security	ACL	extended IP ACL, standard MAC ACL,
	Security defending	Control plane protect, URPF
	Firewall	Packet filter, status detection, unreasonable IP fragment filter, too-small packet filter,
	DDOS anti-attack	ICMPFlood interception, Smurf attack interception, Fraggle attack interception, LAND attack interception,, SYNFlood attack interception
	VPN	L2TP, GRE, IPSec, IKE, RSA
	NAT	Static NAT, dynamic NAT, static NAPT, dynamic NAPT
	Authentication	RADIUS, TACACS
MPLS	MPLS/BGP VPN(L3 VPN)	Support one Site belonging to multiple VPNs
	MPLS TE	Support MPLS TE
	MPLS multicast	Support MVPN
	MPLS OAM	MPLS ping, MPLS trace route
QoS	Flow classification	Based on port, MAC address, IP address, IP priority, DSCP priority, TCP/UDP port number, protocol type
	Traffic monitoring	CAR
	Congestion management	PQ, FQ, CBWFQ, LLQ
	Traffic shaping	GTS
	Other	H-QoS, Ethernet sub interface QoS, MPLS QoS
Reliability	Component reliable	Power, fan, and service module support hot-swap
		Management control engine and Power are separated from each other
		Dual IOS, Dual Bootroom
	Link reliable	Support BFD for BGP/IS-IS/OSPF/VRRP ,
		Support Keepalive Gateway
	Backup function	Support VRRP
		Support bandwidth-based load balance and backup
		Support user-based (IP address) load balance and backup
		Support NSF/GR for OSFP/BGP/IS-IS/LDP/RSVP
		Support IP FRR
management	Network management	SNMP v1/v2/v3, MIB, RMON, SYSLOG

	System management	Console port login management, AUX port login management, Telnet (VTY) remote management, SSH management

Order Information

Host model	Description
MP7300-06-MF	MP7300-06-MF Chassis, two control engine slots, 1 service engine slot, 6 line card slots,1 Fan slot, 2 power slots, Note: 2 power module recommend, Fan is mandatory.
FANS	
FAN-5B-01	FAN-5B-01, fan module for MP7300-06-MF
POWER	
AD250-1S005E	AC Power Module, 250W, AC Input, 100-240V,3.5A, Hot swap
Master Card	
RM7D-MPU	RM7D-MPU Control engine,1 CON/AUX port,1 Management LAN port,1 CMM port, Default 128M flash,1 SD Slot.
Service Engine Module	
RM7D-SPU10	RM7D-SPU10 Service Module.
RM7D-SPU05	RM7D-SPU05 Service Module.
RM3C Line cards	
RM3C-1POS-OC12	V1 Version: one port OC12 POS Module
RM3C-2POS-OC12	V1 Version: two port OC12 POS Module
RM3C-4POS-OC12	V1 Version: four port OC12 POS Module
RM3C-1POS-OC3	V1 Version: one port OC3 POS Module
RM3C-2POS-OC3	V1 Version: two port OC3 POS Module
RM3C-4POS-OC3	V1 Version: four port OC3 POS Module
RM3C-1CPOS-OC3	V1 Version: one port OC3 channelized POS Module
RM3C-2CPOS-OC3	V1 Version: two port OC3 channelized POS Module
RM3C-8E1	V1 Version: eight port E1 Module
RM3C-8CE1	V1 Version: eight port channelized E1 Module
RM3C-4GE	V1 Version: four port Gigabit Combo Ethernet Module
RM3C-8GE	V1 Version: eight port Gigabit Combo Ethernet Module
RM3C-20GET	V1 Version: 20 port 100/1000M Base-T Ethernet Module
RM3C-20GEF	V1 Version: 20 port 1000M Base-X SFP Ethernet Module
RM3C-1XGEF	V1 Version: one port 10G SFP+ Ethernet Module
Multi-Service Module	

RM-MSU-B	Multi-Service Module, Support IPsec, L2TP, GRE, NAT,