



PacketAssure™ iQ 1000e

Intelligent Quality of Service for Enterprise IP Networks

- Standards-based, intelligent QoS enables Service Level Agreements
- High performance Layer 2 switching eases setup and administration, ensures long service life
- “Layer 3-Aware” traffic management enables DSCP marking for consistent handling of traffic, end-to-end
- Scalable, modular design consolidates assets and trims spares inventory
- Custom user interfaces match management tasks to operator skill level

The migration to Internet Protocol (IP) technologies poses a unique set of challenges for network designers, administrators and operators alike. These challenges include unifying disparate systems, securely extending converged traffic flows, and maintaining Service Level Agreements to subscribers, among others. The PacketAssure™ iQ 1000e Service Delivery Manager intelligently manages, prioritizes and polices communications traffic, enabling the simple creation and enforcement of Service Level Agreements.

With the PacketAssure iQ1000e, network planners and designers can create granular QoS classifications and custom policies to ensure consistent prioritization of all classes of user traffic. This simplifies the creation, operation and administration of a converged communications infrastructure for service providers and enterprise networks.

With an assortment of hot-swappable multi-service interface modules, the PacketAssure iQ1000e enables migration from legacy networks to Everything over IP (EoIP), transitioning existing assets as required. Enhanced COTS features, implemented in hardware and software, extend service life in environmentally challenged installations.

PacketAssure iQ Service Delivery Managers are specifically designed to operate over congested internet facilities employed by service providers and other commercial network infrastructures.

Comprehensive IP-based QoS functionality provides coarse- and fine-grained control of traffic prioritization on a per-service basis. Extensive Layer 1-4 classifiers, coupled with a host of prioritization policies and eight customizable queues per port, provide users with extreme flexibility in traffic classification, from latency-sensitive voice and video to best-effort data.

Embedded security attributes allow operators to safely manage information-related risks. iQ Manager, a Web User Interface, plus a contemporary Command Line User Interface both support the complete spectrum of device management, via local or remote, in-band and out-of-band connections, all secured and logically separate from user traffic. The iQ Manager features a Web 2.0-style presentation that ensures simple setup and administration of management parameters with minimal training investment.

Additionally, service wizards and template-building utilities allow network designers and planners to construct custom service workflows tailored to match operator skill sets and enterprise business objectives.

Chassis	
Maximum Data Transfer	18 Gbps, non-blocking
Status Indicators	
Front	Power Status, Active System Alarms, Port Status/Activity
Rear	Power Status, Active System Alarms
Maximum Interface Option Modules	Up to 18 individual Gigabit Ethernet interfaces
Control Ports	Serial: RJ-45; Ethernet: RJ-45
Protocols	
IP Stack	Ethernet, VLAN, STP/RSTP, L2 Multicast, MAC Bridging 802.1q, IPv4, IPv6, TCP/UDP, RTP, RTCP, NTP, SFTP
IA	SSH, TLS 1.0, PacketAssure Managed Data. All ports Admin Down as Factory Default. Per port blocking. Per MAC address blocking
QoS	802.1p, DSCP, Fine-Grained QoS, color-aware Random Early Detection (RED)
Management	
Management Framework	iQ Manager Web User Interface; Command Line Interface, SNMPv3 Fault, Configuration, Administration, Performance, and Security Management. All management connections secured via SSH or TLS. In-band & Out-of-band, local & remote connectivity. All connectivity methods and user privileges under admin control
System Clocking	Recoverable via any Serial port or station timing port. Station timing port accepts RS-422 (Balanced), Bipolar/Zero-Cross, and Single-Ended TTL. Up to three user-configurable timing sources including internal oscillator with automatic switchover/switchback
Mounting	19" EIA rack mountable or tabletop. Mounts to flange depths 18" – 24" using included four-corner brackets. Brackets support fore/aft mounting
Dimensions	17.5" (445mm) W x 15.0" (381mm) D x 1.75" (45mm) H 13.5 lbs (6.1 Kg) fully loaded
Power	90-130/180-264 VAC, 2.0/1.0A, 47-63 Hz, auto-ranging
Environmental	
Operating Temperature	-20°C to +60°C fan-cooled, per MIL-STD-810, Method 501.4, Procedure II
Storage Temperature	-30°C to +75°C, per MIL-STD-810, Method 501.4, Procedure I
Humidity	Up to 95% RH over a 20°C to +60°C range, non-condensing per MIL-STD-810, Method 507.4
Operating Altitude	0 - 15,000 feet (4,600 m), per MIL-STD-810, Method 500.4, Procedure II
Storage Altitude	0 - 40,000 feet (12.192m), per MIL-STD-810, Method 500.4, Procedure I
Environmental	FCC Part 15 Class B, EN55022:2006, EN60000-3-2, EN61000-3-3 MIL-STD-810, Method 516.5, Procedure VI, Bench Handling Shock MIL-STD-810, Method 514.5, Procedure I, General Vibration MIL-STD-810, Method 514.5, Procedure II, Loose Cargo Vibration MIL-STD-810, Method 516.5, Procedure I, Functional Shock MIL-STD-810, Method 510.4, Procedure I, Blowing Dust MIL-STD-810, Method 510.4, Procedure III, Settling Dust
Option Cards	
All Interface Option Modules can be installed in any position in the PacketAssure iQ1000e	
Ethernet IOM	
Six ports per module	
Operating Modes	10BASE-T, 100BASE-T, 100BASE-TX, 100BASE-FX, 1000BASE-X per IEEE 802.3; Auto-Negotiate & Auto MDI/MDIX (copper)
Operating Rates	10/100/1000Mbps
Physical Ports	Four shielded RJ-45 female connectors, plus two Small Form factor Pluggable (SFP) receptacles for optional copper/fiber connections
T1/E1 IOM	
Four ports per module	
Operation Modes	T1 (ANSI T1.102) for DS1; E1 (ITU G.703)
Operating rates	T1: 1.544Mbps or E1: 2.048Mbps
Physical Ports	USOC RJ-48C
Serial IOM	
Four ports per module	
Operating Modes	Unstructured CES (DCE) mode, Framed Ethernet (Transport) mode, user-selectable per individual port; with Adaptive Transport, Auto CoS (ATAC)
Operating Rates	All rates listed in bits per second
CES (DCE) Mode	600, 2400, 4800, 9600, 16K, 19.2K, 32K, 38.4K, 64K, 128K, 256K, 288K, 384K, 512K, 576K, 768K, 1.024M, 1.536M, 2.048M, 3.072M, 4.096M, 4.608M, 5.120M, 6.144M, 8.192M, 10.240M, 12.288M, 16.384M, 18.432M, 20.000M, 22.000M; symmetric/asymmetric
Transport (DTE) Mode	64K, 128K, 256K, 288K, 384K, 512K, 576K, 768K, 1.024M, 1.536M, 2.048M, 3.072M, 4.096M, 4.608M, 5.120M, 6.144M, 8.192M, 10.240M, 12.288M, 16.384M, 18.432M, 20.000M, 22.000M; symmetric/asymmetric
Physical Ports	TIA/EIA-530-A



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