EndaceAccess 40 and EndaceAccess 100

The EndaceAccess™ 40 and EndaceAccess 100 Network Visibility Head-Ends allow users of ultra-high speed 100GbE network infrastructures to capture and monitor 100% of traffic on these high-speed links by load-balancing and splitting the traffic for lossless delivery to existing 10GbE monitoring infrastructure. By extending the life of existing 10GbE monitoring infrastructure into the world of 40GbE and 100GbE, EndaceAccess Head-Ends extend the return on existing investments.

EndaceAccess Head-Ends deliver 100% packet handling at full 40Gbps or 100Gbps line rates on all packet sizes from 64 bytes to 9600 bytes. Each of the ingress ports on the EndaceAccess functions as a demultiplexer, delivering flow-safe load balancing across the 10GbE egress ports to feed EndaceProbes, third-party Intrusion Detection Systems (IDS), Security Information and Event Management (SIEM) systems and/or other 10GbE network and security monitoring tools that need visibility into 40GbE or 100GbE links.

Network visibility requirements for ultra-high speed networks

Effective network visibility for 40GbE and 100GbE networks is orders of magnitude harder to do at those speeds. More than a decade of experience as the leading vendor of high-speed packet capture and analysis technology has enabled Endace to understand these challenges and how to overcome them without compromising effectiveness. Using the EndaceAccess Head-Ends as part of a monitoring and recording fabric of EndaceProbes enables truly accurate, lossless network monitoring and recording at 40GbE and 100GbE.

Together with EndaceProbes, EndaceAccess Head-Ends form part of a modular architecture that provides a highly accurate monitoring infrastructure to suit everything from relatively low throughput environments (such as metro financial services environments where latency is the concern rather than link utilization levels), to fully loaded 100GbE segments.

Designed for reliability, EndaceAccess Head-Ends offer hardware redundancy and can continue to operate through an upgrade cycle without missing a beat. As with EndaceProbes, EndaceAccess Head-Ends can be centrally managed through EndaceCMS™, – making it easy to deploy and manage your monitoring fabric and delivering lower cost of ownership.

ENDACEACCESS 40 AND ENDACEACCESS 100 AT A GLANCE

EndaceAccess 40

- 1U rack-mounted appliance
- Dual QSFP+ 40GbE C Form-factor Pluggable (CFP) interfaces
- 12 x 10Gbps output ports
- 100% accurate packet handling at full line rates on all packet sizes from 64 Bytes to 9600 Bytes
- Access to data flows inside 40GbE network links

EndaceAccess 100

- 2U (2 x 1U) rack-mounted appliance
- Dual 100GbE (or 40GbE) C Form-factor Pluggable (CFP) interfaces
- 24 x 10Gbps output ports
- 100% accurate packet handling at full line rates on all packet sizes from 64 Bytes to 9600 Bytes
- Access to data flows inside 100GbE network links

BENEFITS

- Increase return on investment (ROI) by leveraging existing 10GbE monitoring investment for 40GbE and 100GbE links
- Compact design minimizes rack-space, cooling and power footprint
- Architected for high reliability with redundant solid-state drive (SSD) for system boot, dual redundant power supplies and the ability to continually operate through a software upgrade/reboot. System state can be viewed through SNMP and the Lights-Out Management (LOM) interface
- Integrates with EndaceCMS for easy central management and deployment of your monitoring infrastructure.

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EndaceAccess 40 / EndaceAccess 100 – Technical Specifications

Feature	Single CFP per RU
Ports per module	1 x 100G or 1 x 40G
CFP modules per chassis	Pluggable: 1 x 100G CFP (EndaceAccess 100), 1x 40GbE or 2 x 40G CFP
Transceiver support	CFP MSA 1.4, pluggable
Interface protocols	100GBASE LR/100GBASE ER (Endace Access 100) 40GBASE SR, 40GBASE LR (Endace Access 40) as per IEEE802.3ba-2010 standard
Packet size	Minimum packet size: 64 Bytes
Maximum packet rate	40GB (EndaceAccess 40) or 100G (EndaceAccess 100) full line rate (64 Bytes packets without loss (no single outbound flow greater than 10Gbps)
Layer 2/3 handling	Hash-based load balancing based on Layer 5 IPV4 or IPV6 addresses, IP protocol and TCP or UDP ports (both directions map to same Egress port)
Load balancing resolution	Flow-safe load balancing to 12 (EndaceAccess 40) or 24 Egress ports (EndaceAccess 100) Load per port programmable to 0.1%
Egress buffering	Single 10Gbps Egress can sustain 40G or 100G load for 20 ms
MAC Painting	Used for further backend traffic direction via external high-speed switch Maximum of 4096 MAC Entries
Timing	Accepts PPS via RS422 RJ45 (Standard Endace)
Ingress statistics	Link state, Line speed, Frames received, FCS Errors, Packets dropped (buffer overflow), Packet errors (undersize, oversize, malformed)
Egress statistics	Link state, Frames sent, Bytes sent, Frames dropped (due to buffer overflow, due to load balancing configuration)
40/100G Physical Coding Sublayer (PCS)	IEEE 802.3ba compliant
Checksum verification	Ethernet hardware checksum verification
Operating System Storage	Dual SSD RAID-1 (Removable)
Reliability features	Data path can survive a software reboot/upgrade High reliability chassis Flash-based RAID-1 file system Dual redundant AC hot-swap PSUs Cooling fans
Management interface	10/100/1Gbps RJ45
LOM interface	10/100 BaseT RJ45
LOM functions	Power control · Powerup · Powerdown · Powercycle Status · Fan speed · Temperature · Voltage
Power supply	1 + 1 Redundant 650W AC per RU 100-240 V (Auto ranging), 50-60 Hertz, 4-8 Amps 190W maximum
Form factor	1U 19" rack mount (Endace Access 40) 2U 19" rack mount (Endace Access 100) Height: 43mm (1.7") EndaceAccess 40 Height: 66mm (3.4") EndaceAccess 100 Width: 483mm (19") Length: 600mm (23.6")
Weight	11.5 kg (25.2 lb) EndaceAccess 40 23 kg (50.4 lb) EndaceAccess 100
Management	OSm™ (Endace Operating System for management) Secure · CLI · Web-based GUI · SNMPv2c, SNMPv3
Front panel control	Status · Data ports · Management port · LOM port (including IP address for management port and LOM) Setup · Management network port (DHCP or static address configuration) · LOM device (dto) · Control Navigation · System reset · Shutdown
Humidity	8% to 90% non-condensing
Operating temperature range	5°C to 35°C (41°F to 95°F), ambient air

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission [FCC] Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction document, may cause harmful interference to radio communications.

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