

Catapult C4 Packet Capture Appliance

Key Features



- 100% packet capture to host memory on four 1 Gbps ports, with virtually zero CPU utilization
- 64 fully programmable hardware filters operating at full line rate across all ports
- Four 3GHz CPU Cores for multi-threaded processing and load-balancing
- 16 GBytes DDR2 memory
- 6 Terabytes of RAID5 storage
- Up to 800Mbytes/sec (over 6Gbps) write-to-disk throughput
- Highly redundant design to ensure survivability and data integrity

The Catapult C4 Packet Capture Appliance is designed to support ultra-high performance packet capture applications such as security, monitoring or intercept. It delivers the CPU power needed for real-time deep packet inspection or complex pattern search, combined with the deep storage capacity for high data rate capture and post-analysis. The C4 incorporates an advanced cooling design and built-in redundancy to ensure long-term survival in even the harshest environments.

The Catapult C4 uses our advanced 4-port Gigabit programmable adapter hardware to capture 100% of all packets on each of its ports, and streams this data directly across the PCI bus into its 16Gbyte host memory space. With precise time-stamping, checksums and advanced filtering operations also offloaded into hardware, the server's four Intel "Woodcrest" cores, are completely freed up to focus on deep analysis of the captured data stream, greatly accelerating the performance of host applications.

Where high-fidelity data capture and recording is required over an extended time, for later analysis, the Catapult C4 provides 6 Terabytes of storage. Data can be written to disk at more than 6 gigabits per second, and the RAID5 disk controller architecture ensures no data loss even in the event of up to four drive failures.

System Specifications

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|--------------------|--|
| CPU | Four Intel Woodcrest 3.0GHz Cores (SpecINT: 3061) |
| RAM | 16GByte FB-DDR2 |
| Disk | 16 x 500GByte drives 1 million hour MTBF 6 TByte RAID5 Configuration plus 500GByte RAID1 for OS Survive up to 4 drive failures without data loss PCI-e RAID5 Controller with Battery |
| Management ports | 2 x 10/100/1000 (RJ45) Ethernet Ports 1 x 10/100/1000 (RJ45) IPKVM and IPMI 2.0 for Remote Monitoring, Power and Reboot |
| Data capture ports | 4 x 1Gbps Advanced Programmable Adapter (see over page for full adapter specifications) |
| Other ports | 4 x USB 2.0, 2 x PS2, VGA, 2 x Serial, Parallel |
| Removable media | DVD-ROM (Read-only) |



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The advanced 4-port Gigabit adapter card in our Catapult C4 Appliance accelerates traffic inspection through programmable, line-rate packet classification, layer 2 to 4 protocol decoding and signature matching

All captured traffic can be streamed to host memory, or if needed, packets can be filtered so that only the data pertinent to the application, such as traffic from specific addresses, subnets or protocols, are passed to the application. Entire packets can be captured or just the headers, or any part of the payload. Every incoming packet is marked on arrival with a highly-accurate timestamp.

Streams from each port can be directed to separate host memory buffers, or can be merged in timestamp order into one or two buffers.

Total visibility into network traffic and behavior is critical to high-performance security and monitoring solutions. The Catapult C4 ensures that no malicious or anomalous activity goes undetected, regardless of network loading or traffic mix, even with all 4 Gigabit ports running at line rate.

No matter what your packet capture, inspection and storage requirements, the Catapult C4 from nPulse Networks has the world-leading performance, the complete flexibility and the optimized development environment to support your solution needs.

Hardware-based Packet Processing Features

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|---------------------------|--|
| Time-stamping precision | 20 ns |
| HW packet-filtering speed | Wire speed for all packet sizes on all 4 ports |
| Number of filters | 64 fully programmable filters; mixed filters; Boolean operators; 20 pre-defined fields; fixed and relative offsets |
| Predefined filters | IPv4/v6, VLAN, TCP, MPLS |
| Traffic Capture Ports | 4 |
| Electrical interfaces | 4 x RJ-45 10/100/1000 Mbps (standard) |
| Optical interfaces | 4 x 1Gbps SX SFP (optional) |

System Specifications

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|----------------|--|
| Power | 3 x 700W hot-swap, N+1 redundant |
| Cooling | 3 x 120mm high-speed fans 4 x 60mm high-speed fans |
| Size | 3U rack mount 5.75" (H) x 16.6" (W) x 26.6" (D) 14.6cm x 42.1cm x 67.6cm |
| Weight | 105lbs / 48kg |
| Certifications | FCC A, UL, CE |
| Warranty | 12 months |

Ordering Information

| Model | Product Description |
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| C6040 | Catapult C4 Fully integrated, 4-port Gigabit Packet Capture Appliance |

Contact Details

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