SURVEILLANCE STORAGE SYSTEM

COLDSTORE™ COMPACT

SILENT RELIABLE

Reliable IP video surveillance storage in a compact, silent, package

COLDSTORE Compact's sequential recording system is ideal for low-power surveillance storage and greatly increases hard disk reliability.

| Network-attached sequential storage system

| Designed specifically for IP video surveillance storage

| Incorporates LAID and SFS for long disk life & reliability

| Up to 40TB in eight x 2.5" disk bays (SSD compatible)

| Exceptionally low power consumption - only 16 watts

| No data loss on disk failure and no rebuilds required

| Compact, wall-mountable, attractive aluminium chassis

veracity

COLDSTORE Compact is a unique sequential surveillance storage array with a small footprint and low power

Compact delivers Veracity's award-winning COLDSTORE™ technology in a much smaller, even lower-power package. A long useful life with extended disk reliability makes COLDSTORE Compact ideal for multiple unattended sites, especially when combined with TRINITY™.

COLDSTORE Compact front panel can be removed quickly allowing access to the disk drives which are easy to insert and remove.

Reliability assured

Our Linear Array of Idle Disks (L.A.I.D™) technology combined with unique Sequential disk Filing System (S.F.S™) produces a powerfully simple system which can provide generous storage capacity at low cost. Whilst simple in concept, this delivers a highly reliable storage system which dramatically extends disk lifetime even when using the lowest cost disks available.
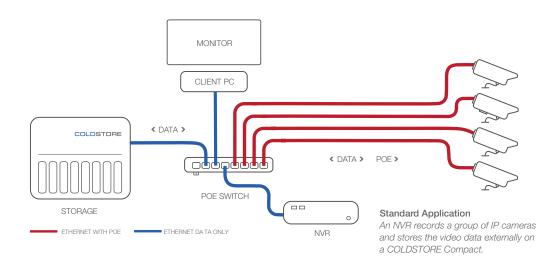
Low power, low cost

COLDSTORE Compact uses only one-tenth of the power of comparable systems, is resilient to disk failure, requires no disk rebuild process and reduces running costs. It provides an easy way to instantly extract and transport critical evidential video data. Disks are used sequentially, with all of the disks not in use being switched off, saving power and thus greatly reducing temperature, vibration and wear – the three primary disk killers. The system uses a unique mirrored overlapping-pair writing pattern to provide full data redundancy during the critical writing process. This delivers the redundancy of RAID1 on write, but unlike RAID1, does not require double the number of disks.

Extended Disk Lifetimes

Within the disk, the sequential disk filing system eliminates vibration from the read/write head and lowers operating temperature. Within the array, the use of sequential overlapping mirrored writing pairs requires only two active disks at any one time with the others switched off. This greatly reduces wear and further reduces array vibration and operating temperature. Thus every disk is off, on average, for 75% of the time. Disks automatically switch on for playback, but typically playback from non-writing disks is infrequent and hardly affects the average duty cycle.

Purpose-Designed System

COLDSTORE Compact is built around a custom designed single-board system with low-power CPU and integrated direct SATA connections. Even a fully populated 40TB array will only use 16 watts. The low power system extends the electronic component lifetime, which, combined with the extended disk lifetimes results in a very low overall total cost of ownership.

Standard Application
An NVR records a group of IP cameras and stores the video data externally on a COLDSTORE Compact.

Low power, silent operation and high capacity make COLDSTORE Compact an ideal system for TRINITY™ direct-to-storage surveillance

Configuration and Management

COLDSTORE Compact is very simple to configure, manage and monitor through Veracity's universal site configuration tool, SITESCAPE. This Windows application allows automatic device discovery, configuration of settings, analysis of disks and a basic level of diagnostics.

Simple Disk Management

COLDSTORE Compact can use any make, model and capacity of 2.5" SATA disk drives including any mix of drives. Disks may be added "on the fly" and will automatically be incorporated into the array. The physical location of specific time spans can be identified through SITESCAPE and disks may be extracted at any time. The disk status LEDs above each disk slot indicate writing, selection, fault and removal

readiness. These simple features, along with the user-friendliness of SITESCAPE, allow Compact and the disks to be easily managed by system integrators and end-users alike.
In addition to the mirrored overlapping-pair mode, Compact can also operate in full mirrored pair mode if desired.
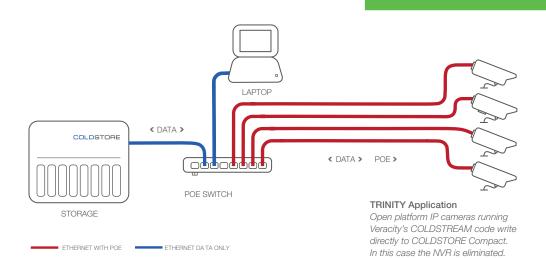
Integration

Veracity works closely with many Video Management System (VMS) suppliers worldwide to ensure that their VMS systems are compatible with COLDSTORE Compact. Please visit the Veracity website for the latest VMS compatibility and status information.

Veracity also provides a comprehensive SDK for VMS manufacturers who wish to develop support for COLDSTORE.

TRINITY™ Direct-To-Storage

COLDSTORE Compact supports Veracity's TRINITY Direct-to-Storage system architecture. This alternative approach exploits the processing power of modern open-platform IP cameras. Veracity's COLDSTREAM™ application runs inside the cameras which then write directly to COLDSTORE or COLDSTORE Compact, thus eliminating the need for NVR server hardware and expensive VMS licences.

The TRINITY system also supports a choice of front-end client systems, ranging from Veracity's own simple player to fully-featured integrated Command and Control systems or PSIMs. For a list of currently supported IP cameras and client front end systems, please visit the Veracity website.

LAPTOP

COLDSTORE

‹ DATA ›

POE SWITCH

‹ DATA › POE ›

STORAGE

━━━ ETHERNET WITH POE   ━━━ ETHERNET DATA ONLY

TRINITY Application
Open platform IP cameras running Veracity's COLDSTREAM code write directly to COLDSTORE Compact. In this case the NVR is eliminated.

www.veracityglobal.com

TECHNICAL **SPECIFICATION**

COLDSTORE™ COMPACT

GENERAL

Storage array type	Network attached sequential array running L.A.I.D.™ with S.F.S.™ disk filing system.
Interface	Gigabit Ethernet.
Data throughput	400Mbit/sec (unlimited scalability with multiple COLDSTORE Compact units).

SYSTEM

O.S.	Embedded Linux.
System integration	Direct from 3rd party VMS application (SDK available).
Configuration & management	Over LAN via Veracity SITESCAPE™ or SDK.
VMS Compatibility	See website for latest information on all supported VMS systems. Directly compatible with Veracity's TRINITY™ system architecture.

CAPACITY

Drive bays	8 x 2.5" SATA (disk trays included).
Maximum capacity (with 5TB disks)	Raw – 40TB, Effective – 35TB. (Mirrored overlapping pair mode) (28TB is sufficient for 32 HD cameras for 31 days at 2.5 Mbps per camera)

POWER

Power supply	12V DC, 3A external PSU.
Power consumption	16 watts.

TIME SYNCHRONISATION

Time synchronization	via NTP (recommended).

PHYSICAL/ENVIRONMENTAL

Dimensions	W 225mm, H 188mm, D 150mm. (W 8.85", H 7.40", D 5.90")
Weight	3.9kg. (8.6lbs) (without disks).
Wall mounting	VESA-compatible wall mount points on 75mm centres with M4 holes.
Operating temperature	5ºC to 50ºC (41ºF to 122ºF).
Cooling	Low speed fan - near silent operation.
Relative humidity	Up to 85%, non-condensing.
Compliance	CE, FCC, RoHS.

PRODUCT CODES

CSTORE8-C-UK	COLDSTORE Compact 8-bay, 2.5" disk system with PSU, cable for UK
CSTORE8-C-EU	COLDSTORE Compact 8-bay, 2.5" disk system with PSU, cable for EU
CSTORE8-C-US	COLDSTORE Compact 8-bay, 2.5" disk system with PSU, cable for US

COLDSTORE is also available in a 3U rack mount format with 15 x 3.5" drive bays offering up to 150TB storage capacity - using only 60W.

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