BOSCH

DIVAR IP 6000 2U

iSCSI · RAID5 · RAID6

▶ RAID-5 protected (standard configuration), all-in-one recording solution for up to 128 channels

▶ Pre-installed, pre-configured IP storage solution with up to 64 TB storage capacity

▶ Hot-swappable hard drives

▶ Remote monitoring via desktop application, browser or SNMP

▶ 3 years hardware warranty, including next business day services

The DIVAR IP 6000 family is an affordable, simple and reliable all-in-one recording management solution for network surveillance systems.

The DIVAR IP 6000 systems are shipped as pre-configured storage array for the Bosch video recording solution with the Video Recording Manager software not yet installed. Once the software has been downloaded from the Bosch product catalog and installed on DIVAR IP 6000 it will start with 64 channels pre-licensed and is upgradeable up to 128 channels.

Powered by Video Recording Manager software from Bosch, DIVAR IP 6000 is an intelligent IP storage device that eliminates the need for separate NVR (Network Video Recorder) server and storage hardware, reducing the total cost of ownership by as much as 45%.

DIVAR IP 6000 2U is a 2HU rack mount unit that combines advanced recording management and state-of-the-art iSCSI storage into a single cost-effective, plug and play IP recording appliance for IT-minded customers which are seeking for a state-of-the-art "second generation" NVR recording solution.

System overview

The DIVAR IP 6000 family utilizes an energy efficient, embedded design which reduces possible points of failure and boasts Bosch quality through-and-through.

Utilizing "enterprise-rated" hard drives in a fault tolerant RAID-5 configuration, dual port Gigabit Ethernet network interfaces, 8 GB system memory and a latest Intel Quad Core E3-1275 V3 Processor (3.5 GHz, 8 MB Cache), the new models of the DIVAR IP 6000 family deliver high-end performance at a very affordable price.

Easy to install, the system fully integrates into BVMS and Video Recording Manager wizard-based set-up and centralized configuration to reduce installation times by as much as 45%. All components relevant to the usage of DIVAR IP 6000 as storage array in a Bosch recording solution are pre-installed and pre-configured. Simply connect to the network and power the unit up — DIVAR IP 6000 is ready to begin recording straight out-of-the-box.

To create a complete video recording management solution, just download and add Video Recording Manager.
To create a complete video management solution add DIVAR IP 6000 to BVMS. DIVAR IP 6000 offfers iSCSI-based storage, which is the basis for the resilient and scalable video recording and management functionality in BVMS.

BVMS manages all IP and digital video and audio, plus all the security data being transmitted across your IP network. It seamlessly combines IP cameras and encoders, provides system-wide event and alarm management, system health monitoring, user and priority management.

Video Client may be used as playback client only or to create an entry-level complete video management solution without the need of additional licenses.

Functions

DIVAR IP 6000 2U features highly energy-efficient hot-swap redundant power supplies, as well as hot-swap SATA-3 hard drives supporting up to 64 TB (8 x 8 TB) of gross storage capacity. All system software is pre-installed and pre-activated — creating an out-of-the-box ready-to-use video management appliance. It utilizes Microsoft Windows Storage Server 2012 R2.

Instant real time access to video
View high quality HD or UHD video despite low or limited bandwidth connections. If
Video Recording Manager is installed,
Dynamic Transcoding technology ensures you can view your video immediately — anytime, anywhere. The built-in transcoder supports up to 4 x UHD resolution video streams in parallel.

Remote viewing
DIVAR IP 6000 supports our advanced Video Client for remote viewing. Video Client is a Windows PC application for live viewing and playback including Configuration Manager which allows the settings of DIVAR IP 6000 be configured.

IT Management
Microsoft Windows Storage Server 2012 R2 provides a simple, intuitive user interface for system configuration and unified appliance management. Administrators and IT professionals will appreciate the ability to manage DIVAR IP 6000 using the built-in Microsoft System Center Suite. The ability to use one central tool for configuration and operations management reduces installation and training requirements, and helps keep ongoing system management costs low.

Monitoring
The DIVAR IP 6000 family provides SNMP, Remote Desktop and HTTP monitoring support for the system's hardware and, if installed, for the Video Recording Manager application.
Increased reliability of high-availability hardware, embedded design as well as system-wide monitoring and management ensure maximum uptime.

Certifications and approvals

Region	Regulatory compliance/quality marks	
Europe	CE	DIVAR IP 6000
USA	UL	DIVAR IP 6000 (R2)

Installation/configuration notes

DIVAR IP 6000 2U comes pre-configured in a RAID-5 standard configuration with iSCSI LUNs (fully populated system only) and provides the following specifications:

RAID-5 configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	550 Mbit/s	64+ pre-licensed / 128+ max.
4 x 3 TB	8375 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 3 TB	19550 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
4 x 4 TB	11170 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 4 TB	26060 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 6 TB	39102 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 8 TB	52136 GB	550 Mbit/s	64+ pre-licensed / 128+ max.

*Performance only warranted with hard drive models tested and qualified by Bosch.

These values refer to the Bosch recording applications. Net capacity for a RAID-5 configuration without hot spare. 64+/128+ connected IP cameras indicate the number of concurrent recordable cameras plus 8 sessions for replay in a scenario, where Video Recording Manager is installed locally on the appliance. If DIVAR IP 6000 is used as a pure storage system with Video Recording Manager running on a dedicated server, the number of recordable cameras per storage target can reach up to the iSCSI session limit of the included Windows iSCSI software target (256 sessions).
Optional supported RAID configurations are RAID-5 with 1 x hot spare or RAID-6 without hot spare. The optional RAID configurations will not come pre-configured but must be set up manually via the pre-installed RAID configuration utility.

RAID-5 plus hot spare configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 3 TB	16758 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 4 TB	22344 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 6 TB	33516 GB	550 Mbit/s	64+ pre-licensed / 128+ max.
8 x 8 TB	44688 GB	550 Mbit/s	64+ pre-licensed / 128+ max.

*Performance only warranted with hard drive models tested and qualified by Bosch.

RAID-6 configuration

Gross Capacity	Net Capacity	Bandwidth*	IP Cameras
w/o HDD	n/a	475 Mbit/s	64+ pre-licensed / 128+ max.
8 x 3 TB	16758 GB	475 Mbit/s	64+ pre-licensed / 128+ max.
8 x 4 TB	22344 GB	475 Mbit/s	64+ pre-licensed / 128+ max.
8 x 6 TB	33516 GB	475 Mbit/s	64+ pre-licensed / 128+ max.
8 x 8 TB	44688 GB	475 Mbit/s	64+ pre-licensed / 128+ max.

*Performance only warranted with hard drive models tested and qualified by Bosch.

DIVAR IP 6000 can be upgraded once with an additional 64 channel license. The respective upgrade license has to be purchased. The upgrade allows for the maximum of 128+ sessions: 128 sessions for recording, 8 sessions for replay.

System status

DIVAR IP 6000 comes fully loaded and fully functional with Microsoft Operating System Windows Storage Server 2012 R2. It comes with a built-in 64 channels Video Recording Manager recording application license from Bosch which will be activated once Video Recording Manager software is installed by the user.

DIVAR IP 6000 without pre-installed hard drives:

The RAID configuration of third-party data hard drives must be set up manually via the pre-installed Intel RAID management utility. Only after this manual RAID configuration the system provides full functionality.

Notice

Uninterruptable Power Supply (UPS). We strongly recommend using an "Online UPS" with an always active battery. The UPS must support Windows Storage Server 2012 R2 and must be sufficient to allow time to bring an auxiliary power source on line, or to properly shut down the DIVAR IP disk array(s).

Notice

DIVAR IP 6000 comes pre-installed with all the software components necessary in a Bosch recording environment. It is pre-configured to be integrated into a recording or video management solution from Bosch out-of-the-box without any additional configuration tasks to be carried out on the storage system itself.The Video Recording Manager software is not yet installed and DIVAR IP 6000 does not include any video management or viewing application. Video management or viewing software must be installed on separate hardware.

Notice

Bosch is not liable for system failures of units equipped with third-party hard drives if the third-party hard drives are source of the issues. Such drives are not covered by the 3 years warranty.

Notice
Hardware warranty
The next business day on-site service level can only be provided if the respective system has been registered immediately after receipt and installation. Otherwise, service will be provided based on best effort basis.Information about registration details is available in every shipment (registration form) or from the Bosch online product catalog. Next business day services cannot be provided in every country everywhere. For limitations and exceptions see the registration details in the registration form.

Notice
Software maintenance
Maintenance of software components is not included in this product.
A separate maintenance agreement needs to be purchased, in order to receive updates and technical support for the installed software.

Technical specifications

Electrical

Electrical	
AC input rating	100 to 240 V / 50 to 60 Hz

Electrical 140 VAC input	
Input current	4HD: 1.6 A 8HD: 1.9 A
Actual output wattage from power supply	4HD: 200.5 W 8HD: 246.1 W
Efficiency of power supply	92%
Power consumption*	4HD: 217.9 W 8HD: 267.5 W
Total BTU/h	4HD: 743.9 8HD: 913.0
Power factor	0.98
System AC input VA requirement	4HD: 222.4 VA 8HD: 273.0 VA

*System power consumption may vary based on workload and environment.

Electrical 240 VAC input	
Input current	4HD: 0.9 A 8HD: 1.1 A
Actual output wattage from power supply	4HD: 200.5 W 8HD: 246.1 W
Efficiency of power supply	94%
Power consumption*	4HD: 213.3 W 8HD: 261.8 W
Total BTU/h	4HD: 728.0 8HD: 893.6
Power factor	0.96
System AC input VA requirement	4HD: 222.2 VA 8HD: 272.7 VA

*System power consumption may vary based on workload and environment.

Mechanical

Mechanical	
Form factor	2HU rack mount
Power supply	740 W Platinum Level Redundant

Mechanical	
USB ports	Front: 2 USB 2.0 ports Rear: 2 USB 2.0 ports, 2 USB 3.0 ports
Network	Dual Intel i210AT Gigabit LAN
Dimensions (H x W x D)	89 x 437 x 648 mm (3.5 x 17.2 x 25.5 in)
Weight	23.6 kg (52 lb)

Environmental

Environmental	
Operating temperature	+10 ℃ to +35 ℃ (+50 ℉ to +95 ℉)
Non-operating temperature	-40 ℃ to +70 ℃ (-40 ℉ to +158 ℉)
Operating relative humidity	8 to 90% (non-condensing)
Non-operating relative humidity	5 to 95% (non-condensing)

Processor

Processor	
Processor	Intel Xeon Processor E3-1275 V3 (8 MB Cache, 3.5 GHz)
Socket	1
Cache memory	8 MB Intel Smart Cache
Memory protection	ECC unbuffered
Max front side bus	1600 MHz

Memory

Memory	
Memory installed	8 GB, DDR3-1666 ECC UNB (1 x 8 GB)

Storage

Storage	
Storage Type	8 Trays: 3.5-inch SATA
Hard Drives Installed	
• Data	SATA-3, 7200 RPM, 64 MB, 3.5", RAID-5 configuration DIP-6183-4HD: 4 x 3 TB DIP-6183-8HD: 8 x 3 TB DIP-6184-4HD: 4 x 4 TB DIP-6184-8HD: 8 x 4 TB DIP-6186-8HD: 8 x 6 TB DIP-6188-8HD: 8 x 8 TB DIP-6180-00N: w/o HDD
• OS	2 x 120 GB SSD RAID-1 configuration
Optical	DVD-RW

Storage	
SAS RAID Card	8 ports LSI 3108 SAS3 controller

Ordering information

DIP-6183-4HD Storage 4x3TB
Recording management solution for network surveillance systems.
For up to 128 channels, Video Recording Manager software not pre-installed, 4 x 3 TB storage capacity, expandable up to 6 x 3 TB max.
Order number **DIP-6183-4HD | F.01U.308.452**

EWE-6183S4H-IW DIP-6183-4HD SRV Ext. 12 Mths IW
12-month hardware service extension next business day for DIP-6183-4HD, available for a 4th or a 4th&5th year as a standard.
Order number **EWE-6183S4H-IW | F.01U.341.224**

DIP-6183-8HD Storage 8x3TB
Recording management solution for network surveillance systems.
For up to 128 channels, Video Recording Manager software not pre-installed, 8 x 3 TB storage capacity.
Order number **DIP-6183-8HD | F.01U.308.453**

EWE-6183S8H-IW DIP-6183-8HD SRV Ext. 12 Mths IW
12-month hardware service extension next business day for DIP-6183-8HD, available for a 4th or a 4th and 5th year as a standard.
Order number **EWE-6183S8H-IW | F.01U.341.225**

DIP-6184-4HD Storage 4x4TB
Recording management solution for network surveillance systems.
For up to 128 channels, Video Recording Manager software not pre-installed, 4 x 4 TB storage capacity, expandable up to 6 x 4 TB max.
Order number **DIP-6184-4HD | F.01U.308.454**

EWE-6184S4H-IW DIP-6184-4HD SRV Ext. 12 Mths IW
12-month hardware service extension next business day for DIP-6184-4HD, available for a 4th or a 4th and 5th year as a standard.
Order number **EWE-6184S4H-IW | F.01U.341.226**

DIP-6184-8HD Storage 8x4TB
Recording management solution for network surveillance systems.
For up to 128 channels, Video Recording Manager software not pre-installed, 8 x 4 TB storage capacity.
Order number **DIP-6184-8HD | F.01U.308.455**

EWE-6184S8H-IW DIP-6184-8HD SRV Ext. 12 Mths IW
12-month hardware service extension next business day for DIP-6184-8HD, available for a 4th or a 4th and 5th year as a standard.
Order number **EWE-6184S8H-IW | F.01U.341.227**

DIP-6186-8HD Storage 8x6TB
Recording management solution for network surveillance systems.
For up to 128 channels, Video Recording Manager software not pre-installed, 8 x 6 TB storage capacity.
Order number **DIP-6186-8HD | F.01U.329.139**

EWE-6186S8H-IW DIP-6186-8HD SRV Ext. 12 Mths IW
12-month hardware service extension next business day for DIP-6186-8HD, available for a 4th or a 4th and 5th year as a standard.
Order number **EWE-6186S8H-IW | F.01U.341.228**

DIP-6188-8HD Storage 8x8TB
Recording management solution for network surveillance systems.
For up to 128 channels, Video Recording Manager software not pre-installed, 8 x 8 TB storage capacity.
Order number **DIP-6188-8HD | F.01U.329.140**

EWE-6188S8H-IW DIP-6188-8HD SRV Ext. 12 Mths IW
12-month hardware service extension next business day for DIP-6188-8HD, available for a 4th or a 4th and 5th year as a standard.
Order number **EWE-6188S8H-IW | F.01U.341.229**

DIP-6180-00N Storage, no HDD
Recording management solution for network surveillance systems.
For up to 128 channels, Video Recording Manager software not pre-installed, without HDD.
Order number **DIP-6180-00N | F.01U.308.406**

EWE-6180S0N-IW DIP-6180-00N SRV Ext. 12 Mths IW
12-month hardware service extension next business day for DIP-6180-00N, available for a 4th or a 4th and 5th year as a standard.
Order number **EWE-6180S0N-IW | F.01U.341.223**

Accessories
DIP-6703-HDD Hard disk 3TB for DIVAR IP 6000/7000
Hard disk storage expansion with a capacity of 3 TB.
Order number **DIP-6703-HDD | F.01U.291.794**

DIP-6704-HDD Hard disk 4TB for DIVAR IP 6000/7000
Hard disk storage expansion with a capacity of 4 TB.
Order number **DIP-6704-HDD | F.01U.308.459**

DIP-6706-HDD Hard disk 6TB for DIVAR IP 6000 7000
Hard disk storage expansion with a capacity of 6 TB.
Order number **DIP-6706-HDD | F.01U.330.152**

DIP-6708-HDD Hard disk 8TB for DIVAR IP 6000 7000
Hard disk storage expansion with a capacity of 8 TB.
Order number **DIP-6708-HDD | F.01U.330.153**