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iVDR Hard Disk Drive Consortium

Establishment of a New Removable Disk Drive (iVDR) Consortium

--Aiming for the standardization of a next generation large capacity data platform compatible with a wide range of applications from AV to PC devices—

Tokyo, March 6 2002--- On March 5, 2002 industry leaders Canon Inc., Fujitsu Limited, Hitachi, Ltd., Phoenix Technologies K.K., Pioneer Corporation, SANYO Electric Co., Ltd., Sharp Corporation, and Victor Company of Japan, Limited (listed in alphabetical order) established the "iVDR, Hard Disk Drive Consortium" (iVDR Consortium).

(iVDR: Information Versatile Disk for Removable usage)

Previous to the establishment of the consortium the above 8 companies have moved ahead with the development of the basic technology specifications for the iVDR standard a lightweight, compact, removable hard disk drive compatible with a wide range of applications from AV to PC devices.

The above eight companies with the support of FCI Japan K.K. and Mitsumi Electric Co., Ltd. will invite other companies in related industries to join the consortium. Together with expansion of technology specifications the consortium will examine application formats and content protection security functions working in a joint partnership to further spread the use of the iVDR platform.

While having the large capacity and fast random access typical of Hard Disk drives, the consortium will move ahead with plans to increase capacity from the current level of 40GB to 200GB-400GB within the next two to three years. Using multiple iVDR will allow easy construction of servers with TB (Tera Bytes) capacity. Through the use of the iVDR will for the first time be able to achieve a next generation large capacity data platform compatible with a wide range of devices from AV to PC devices.

By developing iVDR into an industry standard, will strengthen the iVDR's position as a common recording media in the AV and PC industries resulting in increased future expansion of a new infrastructure of hard disk applications that use the iVDR technical standard.

◆ Background behind the creation of the iVDR platform

Digitalization of information such as video, music, and pictures has become a part of our everyday lives through the rapid spread of broad band networks, drop in price of high performance personal computers, the penetration of Digital Still Cameras, and Video Camcorders into the house hold as well as digitalization of broadcast services. We have now entered a new era that surpasses traditional categories of information devices and home appliances as seen in devices that handle information including personal computers capable of recording TV programs, and televisions and mobile phones that can access the internet.

In Today's field of AV devices, 3.5 inch fixed hard disk drives have begun to be used in devices that record large volumes of information. However the use of such fixed hard disk drives in AV devices that have a relatively long life span prevents the consumer from enjoying the benefits from the rapid advancement in high-density technology of hard disk

drives that occur on a yearly basis. Meanwhile through recent improvement in high-density technology, are entering an era in which large amounts of information can be stored on hard disk drives of 2.5 inches and under. A removable disk that can be used by all types of devices would result in the spread of future mobile applications increasing consumer demand for removable hard disk drives. In order to stimulate demand for this type of removable hard disk drive establishing standard technology specifications is essential.

◆ **Goal of iVDR Consortium**

Based on the concept of a removable hard disk drive the iVDR consortium will develop the iVDR platform in order to make it an industry standard as a next generation large data platform compatible with a broad range of devices from AV to PC's. Furthermore will work to spread its use in related industries based on its strength as a device that crosses all barriers for use between different devices. Will move forward in research of further specifications such as interface, file system and applications in order to achieve high compatibility as a removable hard disk drive for 2.5 and 1.8 inch compact hard disk drives for uses ranging from AV devices to PC's. In addition to the processing of digital contents, will also look into the important area of "content protection security technology."

◆ **iVDR Technical Features**

iVDR is not limited to only Hardware, file system and interface specifications but also standardizes industry specifications for application data formats and security achieving a next generation large capacity data platform for common use in AV devices and PC's. iVDR media will play a central role as a data platform that processes all types of data used in AV devices such as video content capitalizing on the hard disk drive's compact size & large capacity and high speed access performance. The iVDR is a new media that provides shared dated over a broad range of markets such as home servers, video recorders, automobile AV devices and computers. Furthermore will look into development of technology for content security functions as an addition to normal types of standard platforms not included with content protection technology.

Preceding the establishment of this consortium, the above mentioned eight companies have worked together on the development of the fundamental technology standard based on the 2.5-inch hard disk drive. The following technical specifications are a result of this development:

1. Hardware Specification------ physical specifications of 2.5-inch removable hard disk drive, Connector specifications for iVDR.
2. Interface Specification-------- ATA command, Expansion AV command, Expansion security command (option)
3. File System Specification----- File system for iVDR.

Looking ahead to the future, the consortium plans on developing application data format and content security specifications for the realization of mutually compatible data for a variety of applications.

(More)

iVDR Hard Disk Drive hardware Specifications (2.5-inch)	
Size	130mm x 80 mm x 12.7mm
Shock-Resistance	Over 900G (when not running)
Connector Specifications	Connector for iVDR 50 pin, Connector durability: connect/disconnect 10,000 times
Command	ATA Standard + AV Expansion + Secure Expansion (option)

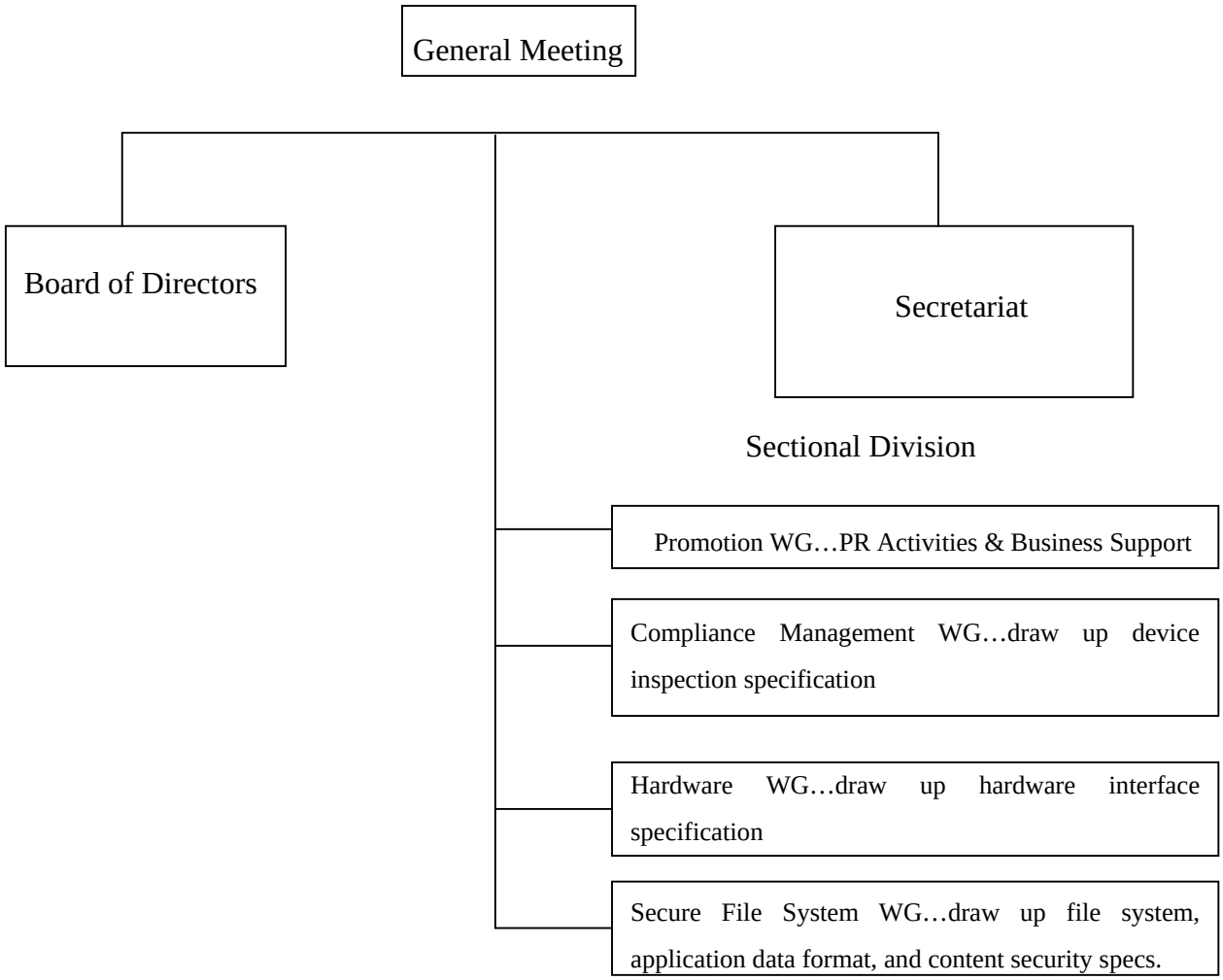
◆ **Invitation for Corporate Participation in Consortium**

Will actively pursue broad participation in the consortium from industries such as related industry device makers, content holders, broadcast, and telecommunications industries.

◆ **iVDR Consortium Home Page**

URL: http://www.ivdr.org

◆ **Organization and Activities of iVDR Consortium**



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