

Choosing a Digital Video Management System (DVMS)

How to find balance between price, performance and upgradability

Traditionally, when we think of the digital video recorder we refer to the DVR, the acronym for Digital Video Recorder. Correspondingly, the last years have brought us derivative **DVR** acronyms such as **EDVR** (Embedded Digital Video Recorder) and **NVR** (Network Video Recorder). The functions of these systems in terms of events and data management, are constantly improving so much so, that they are now called **DVMS** (Digital Video Management Systems).

While some are of the opinion that the functions of these systems are quite similar, important differences can be observed in their costs, their performance, reliability, flexibility, their upgradability and in their scope. Therefore how can we have a comprehensive understanding of these products when we offer them to our clients? What are the capabilities and the general limits of these systems ¹?

Basically, a **DVMS** must accomplish three precise tasks (TRIPLEX)

- ⌚ **Live display** of the recorded video signals;
- ⌚ **Playback**;
- ⌚ **Remote access** from the Web or from the client's software.

However, we can observe important differences in the remote access functions and in the events consultations. As an example, in most of the EDVR's currently on the market, the remote access consultations monopolize the recorder's resources, therefore limiting the functions related to the local consultations. However, except for some models of EDVR's (which would fit in the extended category) most of the models offer only one remote connection at a time. On the other hand, the Elite DVMS, offers the possibility of simultaneous connections of multiple users, including advanced research and archiving functionalities.

Therefore, because the offer is complex, it becomes important to clearly identify, (in the process of analyzing and assessing the needs,) what are your client's current and future needs for the surveillance system he plans to buy. Moreover, this analysis must consider how and in what context (locally or remotely, with one or more users) the client will be able to consult the archives of the DVMS.

To assist you to be more efficient with your clients and with your offer of products and services we have prepared a summary chart, comparing the advantages and disadvantages of the main types of DVMS. We also offer free seminars presenting the main characteristics of these DVMS. Contact us for [the schedule of our next presentations](#) in our offices or in your area.

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¹ Even if the NVR's seem to be very popular these days, we will compare only the EDVR type of the DVMS, the extended DVR and the PC DVR. For those of you interested in network digital video recording, we will soon be publishing an article on the potentials of the NVR's. video recording

Without being exhaustive, this chart compares the advantages and disadvantages of the major surveillance systems.

EDVR	Enhanced EDVR	PC based DVR (Elite)
<p>Advantages</p> <ul style="list-style-type: none"> ⌚ Not expensive ⌚ Small case, easy to hide ⌚ Composite output, easy to plug monitor ⌚ VGA output (option) ⌚ Low power consumption (12V) 	<p>Advantages</p> <ul style="list-style-type: none"> ⌚ Medium life expectancy (2-4 years) ⌚ Inter-operability (relay, alarm, audio) ⌚ Archive media available ⌚ Live display ⌚ Several simultaneous operators ⌚ Image quality ⌚ One keyboard DVR control 	<p>Advantages</p> <ul style="list-style-type: none"> ⌚ Easy to use ⌚ Higher life expectancy (5-6 years) ⌚ Evolving system (possible to add cameras) ⌚ Inter-operability (relay, alarm, bi-directional audio) ⌚ Possibility of adding archive media ⌚ Intergenerational compatibility of software versions ⌚ Different types of remote access ⌚ Several simultaneous operators ⌚ Support of several CODEC ⌚ Management of access privileges ⌚ Hybrid integration (analog camera, IP and mega pixel)
<p>Disadvantages</p> <ul style="list-style-type: none"> ⌚ Limited life expectancy (2-3years) ⌚ Proprietary system: low level of upgradability ⌚ No hardware or software update ⌚ Less performing CODEC ⌚ One connection only ⌚ Remote access in read only ⌚ Less reliable hard disk ⌚ Requires more bandwidth 	<p>Disadvantages</p> <ul style="list-style-type: none"> ⌚ Frequent rebooting ⌚ One user only on display playback ⌚ Less performing CODEC thus bigger bandwidth requirements ⌚ Often no client software ⌚ More expensive than the EDVR and sometimes more than the PC based DVR ⌚ Proprietary archival system requires appropriate media player 	<p>Disadvantages</p> <ul style="list-style-type: none"> ⌚ Higher costs ⌚ No control interface for access systems

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