

KVM TRIVIA Vol.4



What is display emulation?

DDC Emulation - Vol.2 -

[What is display emulation? Vol.2 DDC emulation]

Hello! My name is “Masked Writer K.” I work in ATEN as the writer of this column. For this issue, I’ll discuss a KVM technology that you may have overlooked while working in the server room, and it is called DDC Emulation.

This article has two parts. You are now reading part 2.

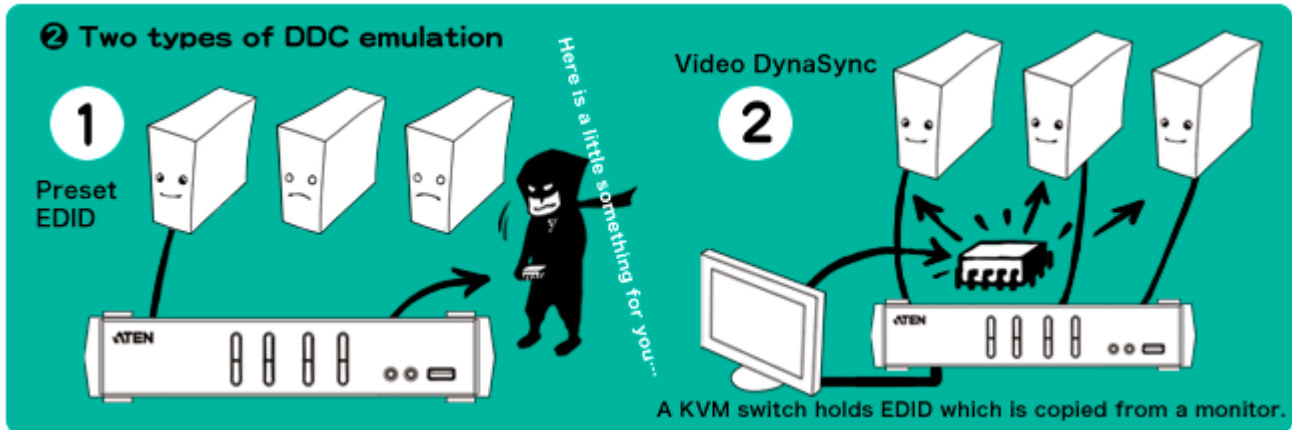
In the previous volume, I cited problems that may cause DDC communication to fail when booting a computer that does not have KVM focus.

In order to avoid this DDC communication error, it has been a common practice for experienced KVM users to first select a computer, from which they want to boot, in the KVM switch’s settings, before powering on the selected computer. If they do not follow this procedure, the KVM switch will not be able to communicate with the display causing the issues mentioned in the previous article.



There are drawbacks to this solution, however, with some users arguing that this extra step is a hassle. In some cases, enterprise users need to boot up their servers at fixed times.

Manufacturers have developed KVM switches that can communicate with computers on behalf of the displays. This works the same way as keyboard emulation, and is called “DDC emulation.”



I’d like to take this opportunity to explain that DDC emulation works in two ways. One is that KVM switches originally have preset EDIDs, which are configured using versatile information technology. Since high resolution is rarely needed in server operations, the preset EDID configurations that KVM manufacturers use should be able to support a range of displays.

The other method has just been recently developed, wherein KVM switches are able to copy and store the EDID of displays. ATEN calls this new technology “Video DynaSync (Display Emulation).” It is different from having a preset EDID in that your computer is able to recognize the display, and consequently use the correct video driver/s. For users who are concerned with the video quality, I recommend KVM switches with the Video DynaSync feature which can take full advantage of a display’s capabilities and provide better viewing resolutions.