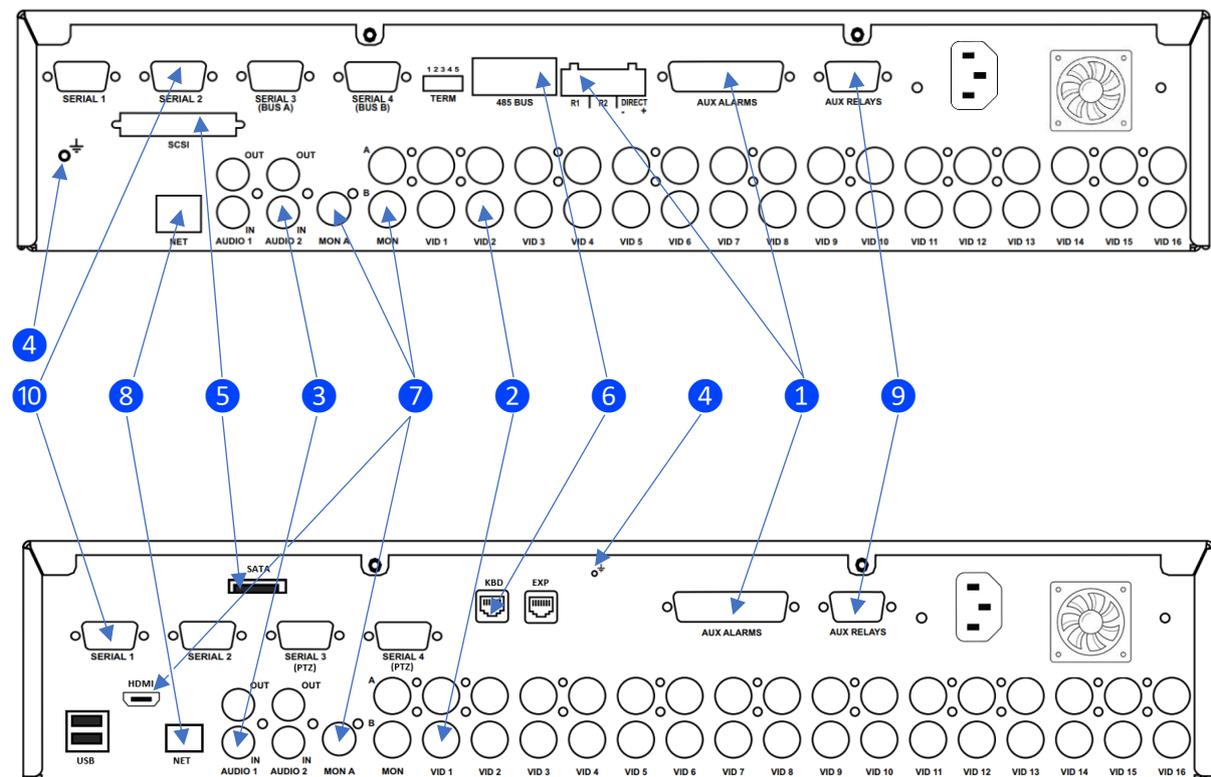# Digital Sprite 2 to SD Advanced Upgrade

So, you need to upgrade your Dedicated Micros Digital Sprite 2 (DS2) DVRs. Which Dedicated Micros product do you choose in order to reduce the disruption to the client?

The Dedicated Micros SD Advanced range of DVRs and NVRs provide the means of updating the system to hybrid and full HD IP video.

The SD Advanced DVR/NVR is a logical choice because the majority of the rear panel connectors are the same as the DS2.

We have produced this guide for the installer to assist in the upgrade process.

DS2

SD-Advanced

Key

1. Alarm Connections (20 general alarm inputs by 25-way female D Type connector, rated at 24V 200mA).

2. Analogue Camera Connections (75Ω BNC composite video input, 1V peak-to-peak with loop through 1V).

3. Audio Connections (Audio in = RCA (phono) socket, 8kHz/16kHz/22kHz sampling 75Ω input impedance, 1V peak-to-peak.
   Audio out = RCA (phono) socket, line level <100Ω, 1V peak-to-peak, amplification required).

4. Earth Connection.

5. External Storage device Connection (e-SATA).

⑥ Keyboard Connections (RJ12 connector for KBC2 keyboard).

⑦ Choice of Monitor Connections (75Ω BNC composite video output, 1V peak-to-peak, or HDMI)

⑧ Network Connection (RJ45 Ethernet network connector, 10/100 MbS^{-1}).

⑨ Connections to Relays (4 onboard light duty relay outputs (500mA@12V to 24V Max) by 9-way female D Type connector, rated at 24V 200mA).

⑩ Serial ports (Serial 1 and 2 = RS-232, 3 wire and 9 wire.
Serial 3 and 4 (PTZ) = RS-485, 2 wire and 4 wire).

Technology updates

The DS2 was first marketed by Dedicated Micros in 2001. The fact that DS2 products are still operational after all this time is a testament to the high quality of the product and low cost of ownership. We are the only manufacturer who can back up their claims made about reliability. The long service of our products provides undeniable proof. However, it really is time to upgrade to a new Dedicated Micros product.

The DS2 employed technologies which have since been superseded. The SD Advanced employs the latest type of industry standard connectors which are as follows:

- The SD Advanced has a HDMI monitor connection will display digital video to 1080p resolution. There is also a composite main monitor output too.

- The SD-Advanced has an e-SATA connector for storage expansion. The iSCSI External storage used on the DS2 is obsolete.

- The SD-Advanced has a USB connection for the keyboard

The SD Advanced features a more powerful processer and more than double the record rate. The default settings will result in an immediate increase in record rate over the DS2 and consequently, smoother video. The resolution of the recorded IP cameras can be up to 6MP at a reasonable bit rate. (The SD Advanced HD is another more powerful product in the range which supports our SmartVu IP cameras up to 12MP).

The SD Advanced records and streams analogue and IP cameras. NetVu's SmartVu IP cameras can be easily added using a simple switch. For high security applications we recommend the use of Closed IPTV. SmartVu IP cameras work with the SD Advanced to provide Closed IPTV. Third-Party IP cameras can be used with SD Advanced, but cannot be used with Closed IPTV.

Other Products in the SD Advanced range

SD Advanced is an obvious choice for a DS2 transition, but there are other more powerful products available which include;

- SD Advanced HD: Hybrid DVR/NVR, HD analogue camera recording or ICE2 HD analogue cameras, HD IP camera recording up to 12MP with our SmartVu 360 degree fisheye camera.

- SD Advanced NVR: Full IP camera NVR, SmartVu IP cameras, built-in secure switch.

- Beyond SD Advanced we have distributed IP systems which are infinitely scalable, full PSIM control room video management and building management software.

All NetVu's Dedicated Micros products contain the NetVu Connected software which brings customisable alarm handling, outstanding VMD and optimised MultiMode recording.

NetVu ObserVer

Our video management software works with all Dedicated Micros products dating back to the early 2000's. It is designed to manage the lower resolution of analogue cameras.

We have a new product, Enterprise ObserVer, which is a highly powerful HD video management tool with alarm customisation programming tools and diagnostics dashboard built into the product.

We recommend an upgrade to Enterprise ObserVer to get the best out of the HD IP cameras, and to improve the ability to diagnose system maintenance requirements and plan the site maintenance visits accordingly.

Ask for details or arrange a trial of the software by visiting the web site:
https://netvu.org.uk/enterprise-observer/

Swap-out

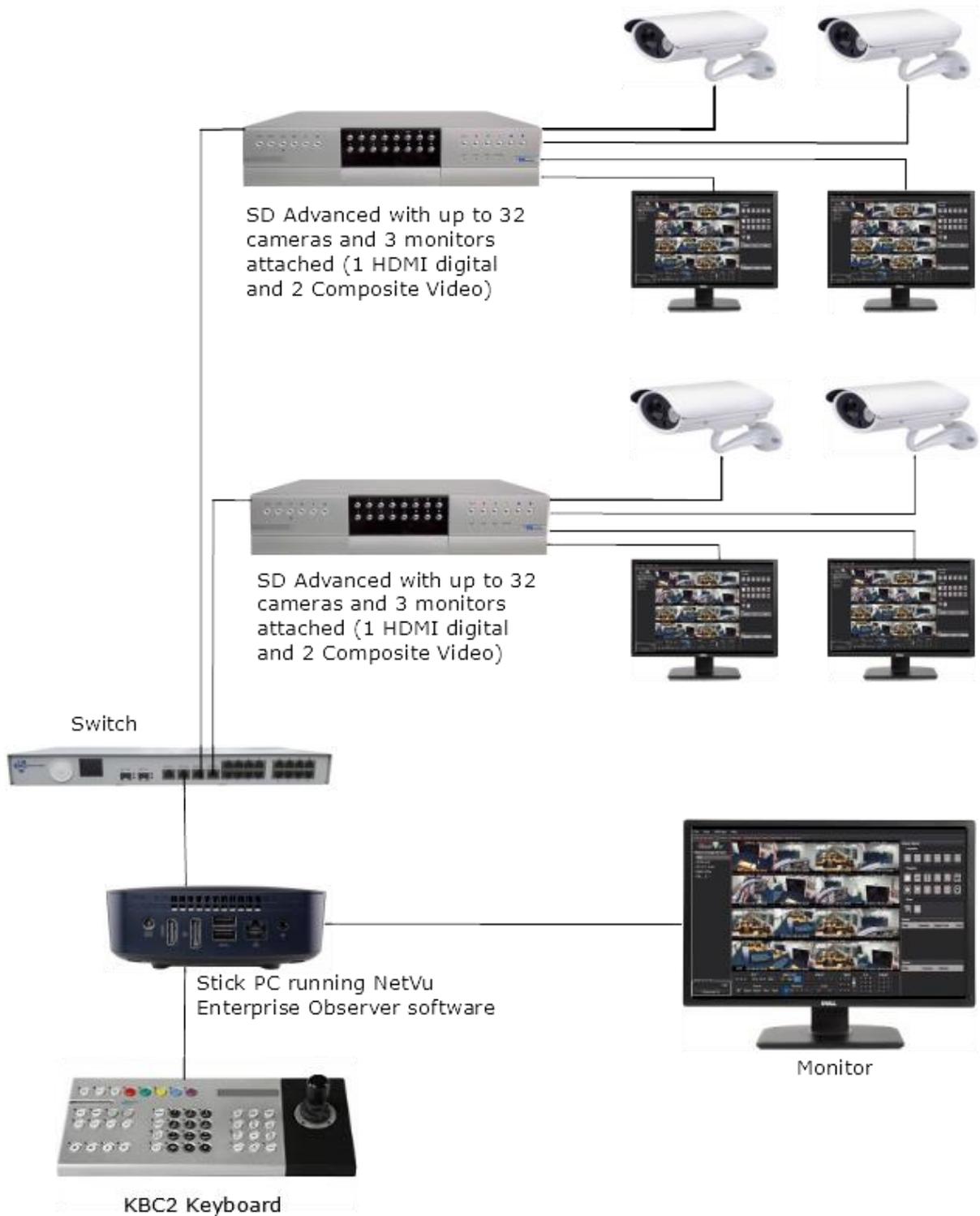When you swap-out a DS2 for an SD Advanced some of the accessories used may also have to be replaced.

	DS2		SD Advanced	
	Part №	Description	Part №	Description
Keyboard	DM/KBS3A	Keyboard with LCD and Joystick	KBC2 or KBC2/U	Keyboard with RS485 connection Keyboard with USB connection
Junction Box	DM/CJ01	485 Bus Termination and Junction Box	USB connection used instead	
External C-BUS Alarm	DM/CI01/16	External C-Bus Alarm	485AL/ACC/I16	Alarm Module 16 way, RS485 bus.

IP Cameras

DS2 has very limited IP camera support. The SD Advanced is a much more powerful unit which allows you to connect our own SmartVu IP cameras up to 6MP, and third-party IP cameras using conventional network switches. A licence key must be purchased in order to connect third-party cameras.

Please be reassured that existing third-party licenses on DS2 units traded-in can be retired and new ones issued for the new SD Advanced. This enables you to continue using your other, existing equipment.

Illustration of control of multiple SD Advanced DVRs, using a single keyboard

SD Advanced with up to 32 cameras and 3 monitors attached (1 HDMI digital and 2 Composite Video)

SD Advanced with up to 32 cameras and 3 monitors attached (1 HDMI digital and 2 Composite Video)

Switch

Stick PC running NetVu Enterprise Observer software

Monitor

KBC2 Keyboard

See https://netvu.org.uk/wp-content/uploads/2018/03/SDAd-HDA-Datasheet-V1.8.pdf or contact NetVu on +44 (0)1928 706 400 or e-mail info@netvu.org.uk for further information and assistance.