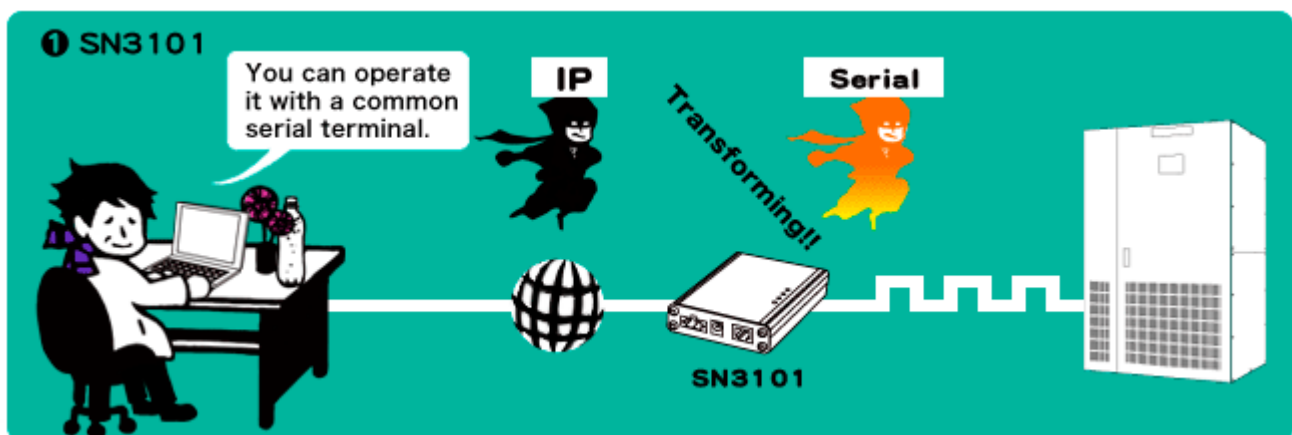# KVM TRIVIA Vol.5

Newsletter from the S Laboratory Vol. 5
The Inside Story of Remote Access to Serial Devices

[The Inside Story of Remote Access to Serial Devices]

This column named "Newsletter from the S Laboratory" presents the inside story of the mechanism of KVM switches and Over-IP products. In this volume, I would like to explain remote control of serial devices through the network in continuation of remote access as the theme.

A serial cable is generally used to connect a PC to a serial device (or other console ports). But its maximum distance is short with around 15m only. Therefore when you maintain your device, you can use a USB-serial adapter cable to connect to the PC or you may activate another PC for the serial device. It is acceptable to adopt either methods.
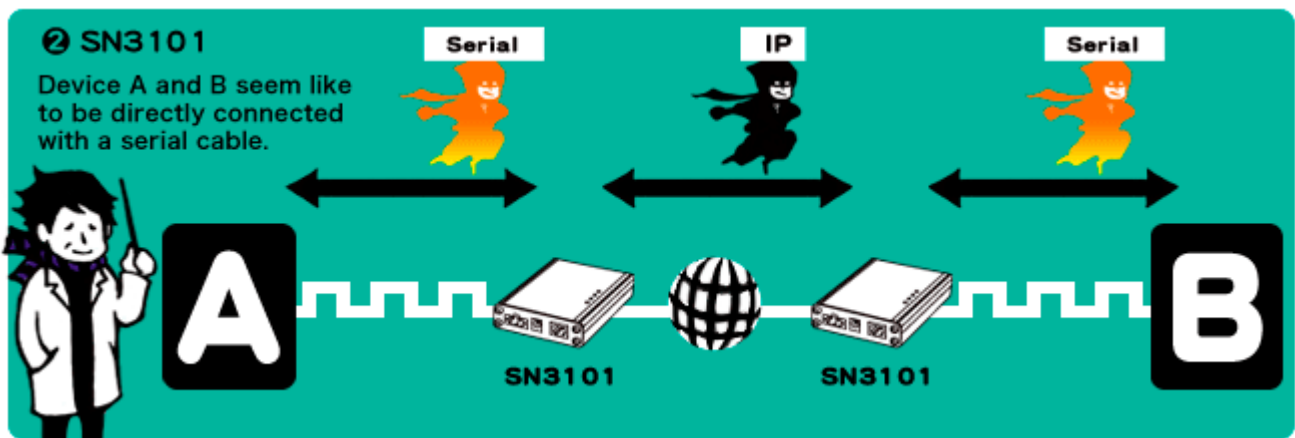
ATEN is offering you a device that can substitute for this PC. Its product name is "SN3101." It is a 1-port serial console server. This product itself measures 10cm at all sides, and its shape is like a little box of about 2cm thickness. It has a serial port and a LAN port, which allows you to operate it in various modes in accordance with the connected serial device.

If you have an SN3101, you not only remotely access the serial device, but also access it with the communication application which you usually use from the PC without a serial port.

Its mechanism is like this: the instruction (signal) for the serial device from the remote PC is converted into Internet Protocol (IP), and transmitted to the SN3101 through the network. The SN3101 decodes the received IP signal into serial signal, and sends it to the serial device. The serial signal transmitted from the serial device will be sent to the PC in reverse.

The above mentioned process is the basic structure of this product. The SN3101 has a special mode (serial tunnel mode). It allows users to be virtually connected by a long serial cable if there are two sets of the SN3101 installed, The SN3101s respectively communicate through LAN. From a users' view, it is like they have a serial cable of unlimited length. Although a detailed explanation is omitted at this time, I introduce it for your reference.

Serial devices are being weeded out as one of the legacy devices because USB devices are spreading these days. But if you use the SN3101, the devices you purchased in the past can still be utilized. If you have any serial device that you can't bear to throw away although you have placed it in a cabinet, it might be interesting to revitalize it through the SN3101.