

## Creating An Ideal Working Environment with KN4140v and CE250A

**Customer :** Tokyo Broadcasting System Television, Inc.



Tokyo Broadcasting System Television, Inc. (TBS Television) is one of the major TV stations in Japan. The company was founded in May of 1951 as Radio Tokyo. It was the first commercial broadcast station in Tokyo. In 1955, the company's new building was constructed in Akasaka and television broadcasting had started. TBS Television is a member of the National Association of Commercial Broadcasters in Japan and leads 28 affiliate stations of Japan News Network (JNN) as the key station.

### Challenges

- To eliminate the cumbersome procedure of entering the server room from the work flow, and carry out the necessary work smoothly
- To extend the KVM console to the operators' desk
- To give multiple operators simultaneous access to servers on the same KVM switch to improve work efficiency

### ATEN Solution

- **KN4140v** - 40-Port KVM Over the Net™
- **CE250A** - PS/2 KVM Extender (Extension 150 meters)
- **KA7175** - USB Virtual Media KVM Adapter Cable

### Benefits

- Remote access and console extension capability enabled the administrators to access the servers from his own desk and thus it improved the work efficiency greatly.
- Multi-access capability and virtual media function made easier to set up a great number of servers
- The compact size of the products opened up the rack space for other use

### Challenge



**Tokyo Broadcasting System Television, Inc.**  
**Computer Graphics Department**  
**Mr. Keisuke Yokogi (left) / Mr. Kaoru Danjou (right)**

#### *To improve the accessibility to the servers and the efficiency of the setup process from the remote console*

Mr. Yokogi and Mr. Danjou work for the Computer Graphics (CG) department at TBS Television. They currently use KN4140v (KVM over the NET) and CE250A (KVM extender) in the server room. They talked about the decision making process they went through for their server system.

One of the steps in the CG production is "Rendering", which is the process of generating an image by calculating data. Because this work is highly CPU intensive, TBS Television has the dedicated servers (render farm) for this process. As the processing performance is a high priority for the render farm, it requires high-performance hardware. TBS Television had the high-performance machines for the servers; however, they decided to replace them to improve the processing power in order to accommodate ever-increasing demand for the CG work.

TBS Television's decision was to set up 40 new mid-spec servers, a lot more in number than before, instead of installing a small number of high-end servers. The new hardware would be placed in the server room located at a different floor, and this presented some new problems.

The first one was the accessibility. The server room is under very strict security restrictions. Anyone who needs to enter the server room has to apply for the security clearance first and notify the administrator each time before entering, even for trivial works such as rebooting the server. This has created a concern about work efficiency.

The second problem was the efficiency of the setup. The analog KVM switch they were using could be used to aggregate the console units, but it did not support multiple users; therefore, efficiency of the setup process was also a concern.

### ATEN Solution

**KN4140v fits the requirements, and CE250A extends the local console. The product test and the past successful record were convincing.**

The people in charge of the render farm started looking for a solution: a Multi-user / Remote control digital KVM switch.

They were interested in a 40-port KVM switch that had not been released at the time yet, so instead we offered them a 32-port and an 8-port KVM switches to be used cascaded, and a console unit CE250A (PS/2 KVM Extender) as a free trial service. The trial configuration was substantial for their requirement and there was no problem with the usability; however, they wanted the system that they can expand in the future and 1U size was the crucial point in what they needed.

Just before purchasing the KVM switch, a new 40 port model "KN4140v" was released. So, they went through the verification process again with KN4140v and everything worked fine. The process had eliminated the concern about the product size, thus they finally decided to purchase KN4140v.



**KN4140v**



**CE250A**

"KN4140v was an ideal product for us because this small single unit could meet all our requirements. Having tested the product before purchasing, we had confidence in its performance, and KN4140v functioned exactly as we expected. So, we made a decision to purchase KN4140v," recalls Mr. Danjou.

## ↓ Benefits

**It enables the administrator to work from his own desk, and makes effective use of rack space with 1U.**

The integration of KN4140v has made the remote access through the TCP/IP network possible. In addition, by extending the KN4140v console with CE250A, it has enabled the operator to control the server from his own desk most of the time. Therefore, it has minimized the necessity to physically enter the server room, eliminating the concern they had before purchasing the new servers. Some people might worry about security loophole; however, KN4140v requires the user to login for both remote and local operations and the access is limited to servers connected to KN4140v. So by minimizing physical access to the server room, it would actually increase the security of other servers at the same time.

Also, KN4140v's main features such as "Multi-user support" and "Virtual Media function" have helped them to improve their work efficiency in the installation process. It would be a time consuming task to connect a console to each of 40 servers one by one, but KN4140v simplifies the process by consolidating the server consoles and allowing the multi-user access for simultaneous installation. It also allows the remote server to recognize and install from the media inserted into the PC's optical drive. All these features have helped to make the operation hour shorter.

Another advantage is the product's compact body. Requiring only 1U space in the rack, it makes effective use of space, leaving more room for other servers and equipment.

## ↓ Prospect

**Satisfaction with the operating environment that fulfills all the requirements.**

**Anticipation for remote power management: Power Over the NET™**

The changeover from the old server to the new server went without any trouble. The fact that they could use both servers concurrently and they were able to test the product before purchasing might have something to do with the smooth transition.

"During the installation, the Virtual Media showed its true potential. Some applications would not install properly unless it was done from an optical drive. Using the Virtual Media feature, I could mount the media on the server from my own desk. So, I was able to complete the installation work without a hitch," Mr. Danjou commented.

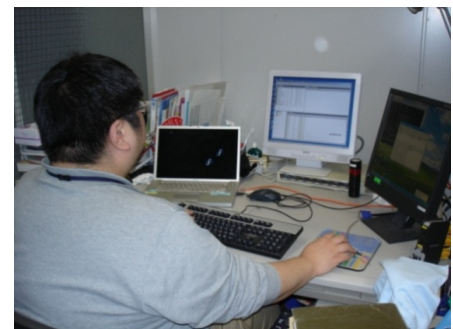
Looking back at the whole server upgrade process, Mr. Yokogi said they were very satisfied with KN4140v.

"It is not easy to find a product that works exactly as it is supposed to, but KN4140v has fulfilled all our requirements. Even though the hardware spec for the server becomes increasingly higher, if the peripherals have inferior range of functions, they would impede the performance of the server. We had an impression that this product had all the necessary features and even the minor details were well thought out. It is very satisfying to be able to do what we want to do. We are very pleased with the product," said Mr. Yokogi.

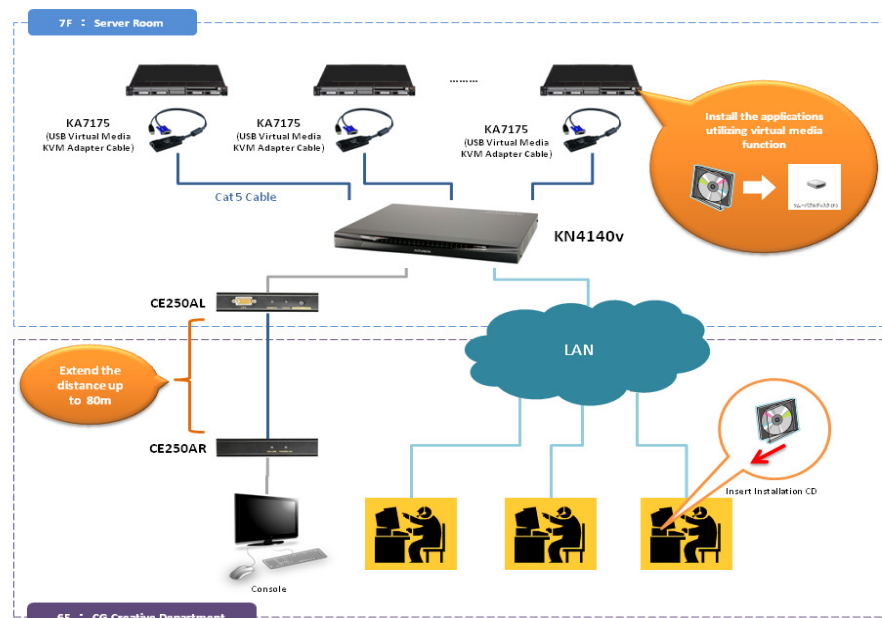
Current setup does not allow for cold start of the render farm. Mr. Danjou would like to have remote power control capability for the render servers or the KVM switch itself to be able to do everything from his desk in future. "ATEN's Power Over the NET product series would enable us to cold start servers in different rooms, thereby we think it will improve our work efficiency even more. We look forward to using this product, too," commented Mr. Danjou.



**KN4140v manages 40 servers**



**Remote access to the servers from Mr. Danjou's own desk**



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**-- Mr. Keisuke Yokogi, TBS Television**